

# A Brief Defence,

Of the Old and Successful

# METHOD

OF CURING

# Continual Fevers;

In Opposition to

Doctor **B R O W N**

And his

*Vindictory Schedule.*

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*Qua ducere oportet, quo maxime vergant, ea  
ducenda, per loca convenientia. Hip. St. A. 27.  
Concocta purgare & movere oportet, non cru-  
da; neque in principis, nisi turgent. Plu-  
rima vera non turgent. Idem St. A. 22.  
Quo magis adstrictam illi aluum praestitero,  
tanto magis eum extra periculi aleam collo-  
co. Sydenham de Febr. Cont. P. 29.*

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To the RIGHT HONOURABLE,  
*Sir Robert Sinclair*  
OF  
STEVENSTOUN,  
SHIRREFF of the Shire of  
*Haddington*: And One of the  
Members of Their Majesties  
most Honourable PRIVY  
COUNCIL.

Right Honourable,

**M**Y Design in pre-  
sentsing to you  
this Small and  
Mean Essay, is  
neither to keep  
it or my self from Censure; nor  
yet to take occasion to divulge  
A 2 your

your Prailes. As for the former it is ordinarily spoke in a Complement, without all Cause, and passeth as such without any Effect: For it neither preserveth the Author from Reproach, nor the Book from an Answer, when any of them are deserved. And if I intended to do the latter, I could hardly say that which would be thought too litle, to such as know you; but I must of necessity run the risk of being esteemed a Flatterer, by them, who are neither acquaint with you, nor your excellent Enduements and great Desert.

My purpose is only to shew both to your self and others, how sensible I am of the manifold Favours, I have received at your

Hands

Hands, in a Countrey where I was a Stranger, and you are, amongst the Gentlemen, the most eminent.

Yea further, you may challenge some Right to it as a Domestick; it being both Conceived and brought Forth within your Walls, while I had the Honour to attend your incomparable Lady, and some of your excellent Children.

Take it then, Sir, as an Evidence of my Gratitude & Thankfulness, and yet be pleased to Honour him with your Favour and Friendship, whose great Ambition it is, to Subscribe himself,

Right Honourable,

*Your most Humble, and  
much Obliged Servant*

James Forrest.



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## The Preface.

**I**T may be thought no small Presumption in me, a Stripling, to enter the Lists with this Man of *Gath*; he being a seven Years older Physician as I am a Man. For in the 36 page of *Philander's Second Letter*, published two Years ago, he boasteth himself to have been a Physician, for near thirty Years; whereas I as yet have never seen Twenty six Summers. However, I shall say no more for my Vindication in this: But, that if I chance to Over-come, my Victory will be the more Glorious, and if it be my ill Luck to be Foiled, the Cause for which I Fight, will suffer the less prejudice; he being one of the Youngest, as well as Meanest, of its Patriots, who hath undertaken the Defence.

I am more solicitous to satisfy my Reader, why I, whose young Years, small Experience, and weak Ability, might have been a sufficient Disswaive from such an Attempt: Do yet nevertheless undertake That, which seems to have been declined by far abler Pens. And my Reasons are the following Two,

*First*, I thought it not unfit that so weak a Brother, as I am, should enter the Combat, that so the World seeing what can be done against him, by so mean and obscure an Author; might thereby judge, what would have been the Event, if any of the more Learned had engaged in the Quarrel: Yea, I looked on the Book which I was to consider, as altogether unworthy the spare Hours of an experienced Man: And I was afraid lest it might give the *Doctor* too just cause of Boasting, if any other as a young Physician had given him an Answer.

*Secondly*, My Resentments for Learning in general, and for Physick in particular, are so great; that I could hardly think to see any of them suffer so much, as they both do, by the *Vindictory Schedule*, without endeavouring my outmost, to procure its Relief from his rapacious Hands, who, providing his own Interest may be advanced, careth not suppose it be upon the Ruines of all others, yea of Learning it self.

I am abundantly sensible, with how much greater Advantage it could have been managed by any other Man whatsoever: But I think when a House is on Fire, it becometh the weakest therein, to do what he can to extinguish the Flames.

It was no vain Conceit of my own Knowledge, my Pretensions to Learning being as few as my Right can be small, that prompt me to undertake this youthly Essay. I had far rather had the satisfaction, to have seen it  
well

well done by others, as to have run the least hazard, of either wronging it, or exposing my self. However, albeit I have not the Happiness to be Learned my self, yet I have the Equity, both to value it, and such as profess it.

Nor yet was it any contradicting Humour, or prejudice at It, or its Author, that caused me prosecute the undertaken Design. For I know no honest nor ingenuous Man, who will not embrace a Truth, especially in Physick, *Ubi luditur de corio humano*, albeit presented by a mean Hand. Seeing the ordinary Proverb tells us, and Reason with daily Experience confirms it: That a Fool may give a Wise-man Counsel at a time. So that if either Reason or Experience could perswade us of the Advantage the *New Method* hath to the *Old*, nothing should deterr us, at least me, from its thankful Acceptance and constant Practice. I ever having (and  
I



I hope with God's Assistance still shall) preferred the Safety of my Patient and the quiet of my Conscience, not only to my Gain and Advantage; but even to my Credit and Reputation.

I am so far from promising either Advantage or Esteem to my self, by this small and abortive Essay: That had it not been my design to leave the Countrey in a short time, it had never seen Light: And were it not to take all occasion of Glorifying from my Antagonist, as if I durst not discover his Adversary, I had concealed my Name. I know there is so little either of Learning or Experience therein, that perhaps I may only hereby discover my Weakness to some, who had conceived a better Opinion of my Studies, as ever they deserved. Nay, it cannot otherways be, it being begun and ended in some Five or Six Days, when I was obliged to attend in an Honourable Family, and so  
was

was denied that help, I might other-ways have expected from my Books. Neither could I afterwards have the time, or be at the pains, to lick my own Bleeding and untimous Birth, but suffered it to creep into the World in the same dress, in which it had slipped from my negligent Pen.

If it be not good, I have given as little of it as possibly I could, noways imitating Doctor *Brown*, who hath transcribed a large Book consisting of 14 Sheets, besides Dedication and Prefaces, from Authors, (sometimes expressing, but oftner concealing their Names) whereas all that any way relates to *Fevers*, which is the subject of his Book, may be easily contained in Four.

I hope nothing herein is repugnant to *Anatomy* or *Physiology* in particular, nor yet to any of the known Rules of *Physick* in general: For smaller Matters, wherein Men may have different Opinions, without being in  
any

any great Errour, I am not much concerned. All who know me, know also how far my Humour is from Boasting, and I know my self how very good Reason I have so to be, my Parts either Natural or Acquired, being but very sober: Yet I'll boldly affirm, that the Arguments here brought for Sudorificks, are such, as the *Doctor* shall never solve, till *Nature* shall change her Course. and as often Cure Fevers by Stool, when left to her self, as now she does by Sweating.

No doubt my Language will be Censured, and I confess deservedly, as Course and Barbarous: I shall not labour to excuse it, but shall only add some Three Things, which may serve somewhat to Apologize for its Roughness. *First*, The Subject is such, as altogether refuseth a handsome Dress: For here I am not only obliged to adhere to, and frequently use again the same Terms of Art,

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which

which nevertheless found pretty harshly in our Mother Tongue, but also I am necessitat to keep clos to the Author, whom I endeavour to Refute, so that I may say with the Poet:

*Ornari res ipsa negat, contenta doceri.*

Secondly, I resolved to instruct, not to Complement the *Dollor*, therefore I was not scrupulous in choosing my Words, providing they were proper and did express my meaning.

And *Thiraly*, As I said before, it was only the hasty product of some five or six idle Days, while I was removed from that Assistance I might otherways have had, both as to its Mater and Form.

Some perhaps may think it very unexcusable, to obtrude upon the World a Book, which I acknowledge to be so unpolished. I readily confess, that without any great Loss to Learning, both the *Vindicatory Schedule* and this *Defence* might have been a wanting: And had it not been for the

the one it should never have been troubled with the other. But ſeing the Offence was given, it was neceſſary to do ſomewhat to remove the Scandal. And for as little as this Answer may contain, yet I hope, by the Judicious and Learned, it will be found a ſufficient Refutation of the *New Method*: As for the Vulgar, I never eſteemed their Applauſe, however, ſeing the very writing of a Book is enough to prevail with them (otherways certainly the *Vindictory Schedule* had never taken much) who knows but this, being the laſt, may be thought the beſt?

Others may probably ſay, Why do I now, after the elapſing of near Three Years, firſt give that Book an Answer? To which I Reply, That all along the *V. S.* diſpleaſed me, and ſo much the more, when I conſidered the Deſign upon which it was write, which could be no other, as to purchaſe a Name amongſt the ignorant

Vulgar, and thereby to be the easilier  
twisted into the larger Imployment.  
I was not a litle confirmed in this my  
Opinion, when some short time after  
my Arival to the Kingdom, in a *Coffee-  
House* the *Vindictory Schedule* was shu-  
fled into my Hands. I knew not the  
Author then, neither do I yet, but I  
instantly concluded him some empty  
*Emperick*, who, it not being the cu-  
stom here as in *London* and elsewhere,  
to affix their Libels and Advertise-  
ments to Posts and Corners, did choose  
the next ordinary, as well as effectual  
way, of distributing it through Ta-  
v erns and Coffee-houses. I was hear-  
tily sorry, that one who carried the  
Honourable Name of a *Doctor in Phy-  
sick*, should abase himself so far, as to  
join Hands with the Scum of Man-  
kind, naughty *Quacks*; who to cheat  
simple people of some Money, do not  
care to rob them of their Lives. This  
made me ever desirous that some per-  
son or other should Chastise the Au-  
thor's

thor's Impudence as well as Ignorance. And accordingly I am informed it was done (I never having seen it my self) in a very fit, and the only deserved way, in a *Dialogue* betwixt *D. Brown* and *D. Black*: For a Book that contains neither Learning nor Reason, should only be Answered with Mockry and Scorn. Nevertheless the *Doctor* glorying in that which should have been his Shame, insulted the more, as if his Book were altogether unanswerable. Therefore I thought it not amiss to give some Reasons why we imploy this Old and Reasonable Method: Although the Authority and Experience of Physicians in all Ages, might be proof enough against him, who really, for the Defence of his New Method, brings no other Arguments, as, *That he says it.*

But farther, that which engaged me at this time, was this, A Fortnight ago being in the Company of a Grave and Judicious Minister, who

as he is a near Relation of the *Doctor's*; so he is a great Admirer of his New Method: Where among other things, happening to speak of the *Doctor* and his *Book*, and he observing me not much to value it, did freely offer to lend me (for it seems the Author is careful to disperse them) the *V.S.* with the Two Letters (I having told him, that I had never seen only heard thereof) thereby designing perhaps to proselite me. And some few Days after, I being obliged, as I said before, to attend a Week in an Honourable Family, did for my Divertisement, write this Answer, and return the Books to their worthy Owner. But now I think I may be at the Expence to Buy the Book, which I have been at the pains to Confute. for to this moment I do not possess it.

I have altogether shunned personal Reflections, for I love to speak of things freely, but of persons honourably. And if any person, either of the



the one party or other, shall be here-with offended, I shall be extremely grieved : For all that I say, is only for love of the Truth, I noways inclining to engage in any Man's privat Quarrel. Only that Attestation annexed to the Tail of his Book, I cannot away with: For surely any knowing Man will think these Persons, though otherways sensible and intelligent, very unfit Judges in such a Case; yea I say, that both *Doctor Brown* and I, ought to give Ear, when such Eminent Men as *Doctor Burnet* and *Doctor Bruce* speak. I have the Honour to be Acquaint with Sir *Thomas Burnet*, and I remember he was pleased to inform me, that it was not a *Fever*, but an other Distemper which then afflicted the honourable Person: And as his great Candor and Ingenuity will never suffer him to be capable of making a Lye; so his great Learning and Knowledge in Physick, do abundantly free him from the necessity

sity of flying to any such base and mean Refuge.

And now to draw to a Close, if the D. shall think this *Defence* worthy of any Reply, I hope he will also grant me the following Requests, otherwise I'll hardly think my self obliged to return him any Answer. *First*, To oppose Reason to Reason, still consulting Anatomy and Physiology: And neither insisting on Experience, which is nothing to the purpose, while I can oppose a Thousand to One; nor yet using Railery and Cavills, which are by me all along declined, they being most averse to my Humor, and I often have observed, that in stead of uniting Mens Opinions, they rather separat and disjoin their Minds and Affections. *Secondly*, I wish it may be in the Latine Tongue in which the Controversy cannot only be better managed, it being very hard to express Terms of Art in the English Language; but also

also our Debates will be thereby concealed from the Vulgar, who seeing us blame one another, may be apt to conclude us both in the wrong. And *Thirdly*, I hope he will do it shortly, lest when he is pleased to appear, I may perhaps be removed.

Finally, Let not the frequent use of the Word *Nature*, offend the Learned Reader. I have read *Boyle* on that Subject, and means nothing thereby, save the different Figure, Structure, Texture, &c. of the Parts, by which they are enabled to act as Second Causes.

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*A brief Defence of the  
Old and Succesful Me-  
thod of Curing Conti-  
nual Fevers, &c.*

**A**Lthough it be a Work of no small pains, and require the knowledge of no few things, rightly to act the part of a *Physician*: Yet not a few there be, aiming more at their own profit than their Neighbours safety, who, as they find it most Easie, so they think it most Safe, to acquire in some few Years, I had almost said Months, some general Compend and universal Method of Curing, which they ignorantly and dangerously apply to all Distempers.

Not

Not unlike to that Medicafter spoken of by the *Learned Wedelius in the Preface to his Pharmacy*, who shuffling all the Physical Receipts he had heired from his Father in a Bag, desired the Patient to try his own Fortune: And if the Cure chance at any time to be as successful as his was, when called to a *Countess* lying sick of a Squinancy, who trying her Luck, did obtain a Clyster, which causing her laugh, did break the Imposthum; immediatly they set up for Masters, and are not satisfied to use the same Remedy in all other Distempers, though never so different, themselves; unless it be also employed & approved by others.

It's far from my Design to apply this to the person, against whom I am now engaged, at whom I have neither any Prejudice, nor of whom I know any Evil, save the Writing of the *Vindictory Schedule*. My Intention being only to endeavour the Vindication, not only of these excellent

lent Physicians who have gone before us; but also of such who at this Day, do either at Home or Abroad practise their Method, and that, Blessed be God, with both Credit to themselves and Advantage to their Patients, from the calumnious Imputation, of either Ignorance as if they knew not the right, or wicked Maliciousness and horrid Murder, that knowing the Right would yet do the wrong. From one of which, providing it be true, what the Author of the *V. S.* most falsely alledges, they cannot be absolved.

Among all these Miseries and Diseases, unto which Man by his Fall was made liable, a Fever perhaps, is the most frequent. A Fever it is which in all Countries, and in all Seasons, without respect to either Sex or Age, does daily Invade, Afflict, yea and Kill many Persons. Neither can it otherways be, seeing our Life seems to depend upon the circular and intestine

stine Motion of our Blood: Which Motion can hardly be troubled, without the production of one sort of *Fever* or other. So of necessity a *Fever* must be of all Distempers, the most frequent as well as most dangerous.

I am not ignorant my self, far less I'm sure any of these in whole Defence I write, how many and great Debates there be among Authors concerning the Definition as well as Division of *Fevers*: However I shall concern my self in none of them here, where I only resolve to give a short, and for what appears to me, the most probable Account of the Disease, in so far as it may serve for clearing its Method of Curing. For as I am very far from presuming (being abundantly conscious of my own Weakness) to usurp the part of a *Teacher*. So I could never much value that vain and ostentive way of some, who force all they can find Rare and Learned in Authors, though never so remote



remote from, and alien unto the subject they treat of, into their own Books, and thereby make them as Ridiculous as the Picture described by *Horace*, in the first Book of his *Art. Poet.* which is a thing not unfrequent in the *V. S.* where all that concerns *Fevers* and their Cure might remain; suppose the largest half of the Book had got the desert of the whole, which is either the Fire or the S----- And how happily this Plagiary hath succeeded with the *Doctor*, we shall perhaps afterwards have occasion to show, in an instance of *Anatomy, Physiology* and *Chymistry*.

To me then it seems not improbable, that the Formalitie, Essence, or if you please a Term of Art, the continent Cause of a *Fever*, consists in a Commotion or Exagitation of the Intestine as well as Circular Motion of the Blood: Whereby the Oeconomie of the Body is disturbed, with divers and sometimes right grievous

Symptoms. Which Commotion, for the most part, may arise from some Heterogeneous Body conveyed into it.

That the Blood is the Subject of *Fevers*, I suppose will be called in question by none, seeing not only the Changes, and sometimes Advantages, which do accrue to the Patient by its Evacuations, are very observable; but also the Crudity and Coction of the morbisick Matter in the Urine is discernable: In a word, the *Jaundice* which sometimes solves the Disease, the Alterations of the Pulse, &c. are sufficient to perswade the morosest of Antagonists.

I look upon it as needless, either to trouble the Reader or my self here, with that more curious as useful Question: Which of the Blood's two parts is most frequently affected: It being, in my Opinion, not unreasonable to acknowledge in the same, a more liquorous and crass Substance  
which

which is moved, besides another more Spiritual or *Æthereal* which moves. All the Arguments alledged in favours of the *Æthereal* Portion, such as the power of Opiats in Curing *Fevers*, and these continual as well as intermittent, the Effects of the Fancy and Apprehension in the same Case, the unchangableness of the Urin and Pulse in malign *Fevers*, and the like: By any judicious and skilled Physician will be as soon Answered as they can be Proposed. Yea, it seems to me highly probable, that sometimes the one, sometimes the other, but most frequently both, may be the Theatre of this unlucky Tragedy.

It was not unadvisedly that I preferred the word Exagitation or Commotion to that of Fermentation: For by this means I not only evite all these Debates and Altercations, which I have observed betwixt *Willis*, *Bontekoe*, and others. But also I am fully convinced, that Fermentation properly

ly taken, is very improperly, either in a Natural or Præternatural State, adscribed to the Blood. For to let alone many other Reasons, reiterate Experience hath taught me, that no ardent or sulphureous Spirit, can be distilled from the Blood of feverish persons: Which nevertheless the same Authors tell us, should always be obtained from fermented Liquors. However if these Learned Men who delight in the word Fermentation, understand only an extraordinary Commotion, Ebullition, &c. I assent to what they say, and think as they write, never loving to contest about Words (my Humor being most averse to Disputes and Debates) when we can agree in Things.

Some there be, and these none of the Unlearnedst, as particularly that excellent Anatomist and Physician, *Barbette*, who maintain the Essence of a Fever to consist solely in the circular Motion augmented, But besides

sides some Arguments to be had from *Barbette* himself: Not only the slowness of the Pulse in the beginning of all Fevers, and through the whole Course of malign ones: But also the very nature of a Fluid Body, consisting in the perpetual intestine Motion of its Minute or small Particles (which clearly appears by the dissolution of Sugar, Salt, &c. in any Menstruum, the gathering together of the dissolved Particles of Silver to the injected Copper, besides several other Experiments, to be met with in the immortal *Boyle his History of Fluid: and Firm.* (does sufficiently, in my Opinion, overturn this ingenious Hypothesis. Howbeit, I shall adventure to say, that the intestine Motion of the Blood being troubled) with its Circulation sometimes diminished, but oftner augmented, does constitute that Disease which is known to the Vulgar, by the Name of a Fever.

From

From this Exagitation or Commotion, it will be no hard matter, to derive all the other Symptoms which in different Subjects do differently invade: Yea, which is no small Argument to confirm the Truth of what I have said, with this Exagitation they ordinarily increase and remit. I do not incline to treat of them all, therefore shall only take notice, as the most frequent and principal of the following Four.

And to begin with Heat, in which the Ancients either sought the Pathognomonick Sign, or placed the Essence of a *Fever* (for betwixt these two there is no small difference, which were easie to show, if my intended Brevity did not forbid me) it especially deserves our Consideration. The Opinion of the Schools placing the Formality of *Fevers* in Heat, albeit it prevailed long with Physicians, yet at length it was exploded by *Helmont*, *Sylvius*, and other: And that (1) Be-  
cause

cause in the beginning of *Fevers*, which by all is acknowledged as one of their parts, Cold creates greater trouble as Heat. Yea (2) some malignant *Fevers* there be, in which the Patients are never heard to complain of Heat, but rather at sometimes do tremble with extream Cold. Nevertheless by admitting a distinction betwixt the Beginning and Status of *Fevers*, and betwixt Internal and Supprest, and External and Manifest Heat, I had far rather grant to the Ancients that the Formality of a *Fever* consisteth in Heat, as say with D. Brown, that Heat is the genuine Effect of slow Motion in the Blood. Whether it be the sublimity of his Discourse, or my shallow Capacity, I shall not rashly determine But forced I am to confess, that I can hardly understand what he there intends, only by the Title of the 8 §. p. 111. I find he resolves to prove Heat to be the genuine Effect of slow Motion in the Blood:  
The

The contrary of which I have ever been taught, and shall here endeavour to evince.

And *First*, I would have it observed, that the intestine Motion of any Fluid, or Body whatsoever, deserves as well the denomination of Motion, as the progressive does; yea the *Doctor* himself in the end of the Section, by his Instance of the Breath and Hand, seems also to acknowledge it: And if I thought he doubted thereof, I could send him to Cooks, to behold their boiling Liquors, not now to mention the Experiments afforded us by the *Incomparable Boyle* in his *Mechanical production of Heat*. Now consequently Heat cannot be the Effect of slow Motion absolutely spoken, since the Intestine, which is most properly so called, is with it and in it exceedingly intended. The *Doctor* ought at least to have distinguished betwixt the Two, and not to have attributed indefinitely to both,  
that



that which Experience denies properly to any of them, and he himself, as I noted before, to one.

*Secondly*, The Cause why by swift progressive Motion the Heat is abated, as I think, is not because that Motion is intended, but rather that the determinate Intestine Motion, *Sursum deorsum & ad utraque latera*, is thereby diminished, or at least not proportionably therewith augmented: So that if the Intestine, can be conform to the Local, as you shall intend the progressive Motion, proportionably you shall increase the Heat.

*Thirdly*, I cannot enough admire, how the *Doctor* comes to assert, that Heat is the genuine Effect of gross Blood, since, with all others, he himself will acknowledge Heat to be produced with intestine Motion: For sure I am the more gross and thick any Body is, the more unfit it is for Motion whatlomever, and consequently

quently rendered the more innept to procure Heat. This is a thing so clearly demonstrat by Philosophers, that it were but a consuming of time, to insist in its probation, and had it come from some old Peripatetick I could easily have pardoned it, but in the *Doctor* who pretends so much Skill to the New and Experimental Philosophy, I can hardly forgive it. Nay I have a greater esteem of our Author's Knowledge, than to think him ignorant of this common and perpetual Truth: But the matter is, his false and precarious Hypothesis does necessarily extort it: For grant one Absurdity a hundred will follow.

More excusable had he been to have said, That crassness of Blood was the native product of Heat, although that be but also accidental. For whatsoever causeth Heat in the Body v.g. volatile Salts, the Sun, Com-motions of the Body and Mind, do all of them immediatly and necessarily bring

bring along with them Thinness of the Blood, and only accidentally Crassness, *viz.* By accelerating its Motion they do augment Transpiration, by which the thinner Particles are exhaled, and the remainder consequently turns thicker, and so much the thicker, so much the unfitter to produce Heat. Hereby it is clearly evinced how falsely the *Doctor* philosophizeth; when he would perswade us that Crassness of the Blood is the Cause of Heat: When on the contrary it is rather the Effect, and that but accidentally too: For whoever can stop or impede the Consumption of the thinner Particles in Transpiration, shall also prevent the Thickness of the Blood, notwithstanding its Heat.

*Fourthly,* So far is it from being true what the *Doctor* avers, P. 111. that Heat is caused by the Attrition the Muscles make on themselves and the adjacent Parts; that the *Doctor*, nor none for him, shall ever by rubbing

D

bing

bing or Attrition, procure Heat to a Sphacelat Member: Where nevertheless there be Muscles and Bones both, but wants Ellood and Spirits.

Yea *Fifthly*, I humbly think that not only Motion, but the Motion of Determinat, Sulphureous, Oyly, &c. Particles, is requisite to excite Heat. Which in my Judgement may hence be proven: That not only Sulphureous Bodies are most ready to contract Heat, Flame, &c. and according as there is more or less Sulphur in the Body, so the Heat will be the greater, lesser or none at all; but also the intestine and confused Motion of the Minute Particles, may sometimes be intended without the increase of Heat, yea with the production of a sensible degree of Cold to the very same Hand, as may be learned from *Boyle in his Mech. Orig. of Heat and Cold*: I being at the time removed from my Books, can neither Instance the Experiment nor Page, but sure I am  
so

severals are there to be found, And here by the by, I would seriously advise to the uniting of these Two, (*viz.* The New Philosophy and Chymistry) which to the great prejudice of solid Learning, have too long been unluckily separat: For the former being mainly taken up about Motion, has almost intirely neglected the Matter: While the latter on the other hand, being as much concerned with the Matter, have wholly over-looked the Motion.

What is said I think may suffice to evert our *Author's* Position: When in his 8. §. he engages to prove *Heat* in *Fevers* to be the genuine Effect of slow Motion in the Blood. It being rather produced, while the Motion thereof, especially Intestine, is intended, and the sulphureous Particles do move, as it were, from the Center to the Circumference.

I proceed to the *Second* and ordinary Symptom of *Fevers*, *viz.* A fre-

quent and hard beating Pulse, which the experienced *Sylvius*, to whom the Hypothesis of the Ancients was unsatisfying, made enter the Definition of *Fevers*, as the Genus. Nevertheless this his Opinion is lyable to the same Censures with the former. For neither the beginning of *Fevers* have still the Pulse augmented, nor yet can we always call it a *Fever* where it is accelerate: As in congrumate Blood, Commotions of the Mind, Worms contained in the Heart, &c. is easily demonstrable. Moreover, by the by, I cannot but observe, that these further Discoveries made in Anatomy about the *Bile*, *Succus Paner*, &c. do noways destroy this Hypothesis, which are nevertheless given by the *Doctor* as the only Reasons why he rejects it: For it can very well stand without that prope, and hath been, and still is maintained by these, who never adopted his *Triumverat*. The Cause of this frequency of the Pulse, I take  
to

to be nothing else, as the frequent and violent Contraction of the Heart, by which the contained Blood is squeezed out, and so distendeth the Arteries.

*Thirdly*, It is also to be noticed, that Cold is not only a Symptom of all *Intermittent Fevers*: But frequently also it is observable in the beginning of *Continual Ones*. Which Cold, any person acquainted with the experimental Philosophy, the *Doctor* pretends to be so much versed in will think to be a more native product of the slowness of the Blood's Motion, as Heat. In a word, the Coldness of the Members in persons troubled with Scurvy, where the Motion of the Blood, as well Circular as Intestine, together with the Pulse, is sensibly diminished, does abundantly prove it.

The *Fourth* and last of these Symptoms I purpose to speak of, is a change in the Urine, (and it admits of the same

turbide and opack, as I formerly laid. Again it is sometimes evacuate turbide, and persisteth in that confused condition, whence it is named, *Urina confusa*, and this is ordinary in the Increment and Status of Fevers; Perhaps, there being many Heterogeneous and Terreous Particles, unequally mixed with the watry portion, which nevertheless are so firmly adjoined to the Serum, all being yet in a state of Crudity, that neither by their proper weight, nor by the help of the external Ambient, can they be thence separate. And Thirdly, the same Urine is sometimes, especially in the end of the Status and beginning of the Declination emitted Thick and Turbide, but does shortly after become Clear and Limpide: Probably the Concoction being then approaching, these Heterogeneous Minima, which being kept in motion in the Body, did still run up and down the containing Liquor, where-



whereby it seemed confused, do now being voided and acquiring rest, yea some two or three, or more of them joining together, become heavier *in specie* as the Serum, and consequently, of necessity must seek to the bottom, where they constitute the *Sediment*: But if they Hang in the middle, they are called *Suspensio*, and if they swim above, go under the name of *Nubecula*.

Upon the other hand, that Urine, which should ordinarily represent and a Ly mid-way boiled, does sometimes turn thinner, and this especially in the beginning of acute *Fevers* is observable. For the explaining of which, it will not be impertinent, to distinguish betwixt *Urinam potus*, and *Urinam Sanguinis*, for the Urine of the Drink, being never digested in the Ventricle, nor assimilate to the Blood in the Vessels, passeth the Reins without all alteration. But the cause of this thin consistence in the Urine,  
as

same Exceptions with the former, as to malign *Fevers*) which in respect of their Consistence, generally turn thicker, seldom thinner: As to their Colour the Natural or Citrin is often turn'd red and fiery, and sometimes pale and watry, but especially in the beginning these are remarkable, while in the Progress and Status they appear still red and thick. In rendring Causes for these Phænomena, I noways incline to follow them, who run instantly to Acids and Alkalies. Albeit I readily grant this Hypothesis to be of pretty large extent, and conveniently applicable to several Cases; yet I cannot in all acquiesce in their Sentence, for Reasons, perhaps to be afterwards rendred.

I shall suppose now with the Excellent *Bohn* and Experience: That the elemental parts of Urine are Water, Salt, Sulphur, and Earth. So that the Urine whose watry and limpid portion is most saturate with these  
Saline

Saline and Sulphureous Particles, is always observed the thickest and craffest: Hence I conclude the cause of thick and turbid Urine, to consist in the confused Admission, and unequal Dissolution of the solid Particles in the aqueous Vehicle. So sometimes we observe the Urine to be clear when voided, and afterwards to turn thick, crass and turbide: Which is commonly called, *Urina turbata*. And, in my Opinion, ariseth hence: That these saline and earthy Particles being more closely and naturally insinuate, in the Pores of the watry part when first voided, do permit the Rays of the Sun to penetrate, and so it appears Diaphanous: But if afterwards either by their own gravity and looser Cohesion, or by the constriction and straitning of the Pores of the Serum, by the ambient frigid Air, they chance to be turned out, the passage to the Rays is thereby intercepted, and the Urine turns

turb-

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as we speak of the *Blood*, may be a twofold Crudity: *First*, That in the Stomach, where the Aliments being frustrate of their due, Digestion, cannot supply the Serum with its ordinary Salts. And the second is that in the Reins, whose *Tubuli* being thereby obstructed, admit only the thin and Watery, excluding the gross and terreous particles.

The Citrine or natural Colour of the Urine, as it depends in a natural state (which I think none will deny) from the saline and sulphureous Particle of the Chyle, in the different Digestions extracted, and more intimately therewith commixed: So from the greater or lesser quantity of these Minima admixed in a præternatural state, their Colour is sometimes heightened, sometimes darkned: However I never intend to exclude other Causes, such as congrumate Blood, the use of Rhubarb &c. And this shall suffice for the Changes of the Urine,

Urine, upon which I have insisted the longer, because they are wholly neglected in the *Vindicatory Schedule*, suppose of all others they give us the greatest Light, both as to the Prognosticks and Cures of *Fevers*. Neither was this Omission of the *Doctors* altogether without reason, for not only the Signs of Crudity and Coction, which ever have, and still will be observed by Learned Physicians in *Fevers*, and by which the *New Method* is intirely destroyed, from them, and them only are to be had; but also few or none of the *Moderns*, from whom the *Doctor* might expect help, have write any thing tollerably of them.

Having briefly handled some few of these Symptoms, with which a *Fever* is ordinarily attended, I come next to enquire after the antecedent Causes, which may, and ordinarily do produce this Exagitation or Commotion, in which I have been labouring

ing to prove the continent Cause of *Fevers* to consist. And these I think, for the most part (never intending to exclude all others) will be found the following Four. *viz. Obstruction, too violent Motion, Natural Evacuation suppressed, and especially Cruasties transferred into the Mass of Blood.*

By Obstructions I would have nothing else understood, as the Coagulation of that limpid and serous Humour, which being secreted in the Subcutaneous or Miliar Glands, is excreted through the Pores of the the whole Habit, and that in no small plenty, under the Name of *Insensible Transpiration*. Which Excrement being condensed and coagulate by the cold ambient Air, or any other Cause, does interrupt, not only the further Transpiration: But also disturbs the whole Circulation in the capillary Vessels, or rather muscular Fibers. By which means the Motion of the subsequent Blood being  
in-



intercepted, the Fibres of the Muscles, as well as these of the Vessels are irritated, and thereby urged into frequent and irregular (not unlike to Convulsions) Contractions, by which both the circular and intestine Motions of the Blood are notably intended, and that which we call a *Fever* produced. It being enough here, for brevities sake, to suppose from Pathologie, that the Motion of Fluids is augmented, either by the Movent, Mobile, or Canals. And this account seems to me, and I hope will also to others, far more reasonable, than with the Learned *Author* of the *V. S. P.* 106. & seq. to attribute Sense and Reason to gross and stupid Matter. Concerning Obstructions more may perhaps be found hereafter, when I come to consider our *Author's* New and Mechanical *Hypothesis*: For of all other Causes I look upon them as the most seldom;

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It is easie to gather, from what is immediatly said, that these Anastomoses or Inosculations of the Arteries and Veins. which with the Ancients, some of the Learned Moderns do admire as very convenient, if not absolutely necessary, for the Explication of the animal Functions, are not by me admitted. I desire to move a Debate to no Man, therefore shall suffer them to abound in their own Sense who embrace them, providing they will on'y allow me to give some Reasons why I reject them: Without which I never have (neither I think ever shall) adopted or repudiated any Opinion, because it was defended by this, or impugned by the other Man. And to let alone Secretion and Nutrition, which to me, these Inosculations being granted, seem altogether unexplicable: There be two Experiments to be found in some place of the *Learned Bohn his Cere Anat.* (I not having the Book by me can-

cannot design the Page, but sure I am of them. having oftner as once seen them tryed) which do clearly evince the Bloods Extravasation. As *First*, Inject with a Syphon tepid water into an Arterie, *v. g.* of the Arm, of any subject whatsoever, a knot being cast upon its fellow Vein: The Water will never run out at the wounded Vein (it being lanced betwixt the Ligature and the Arterie) till the whole Arm and Hand be exceedingly distended; *i. e.* The Pores of the Muscles be all replenished. *Secondly*, Injection being made of melted Wax into an Arterie, as also of the same, but of another colour, into its neighbour Vein: They will be found to have penetrate to the extremities of both the capillary Vessels (but especially in the Arteries, the Valves hindring much in the Veins) but we shall never discern any intermediate Canal, communicating with both.



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The grand, yea only Objection, formed against this Opinion, is, That this Extravasation being admitted, a continual Hemorrhagie must of necessity follow, and that the Blood would rather diffuse it self through the Flesh, as enter the small capillary Veins. This Objection indeed appears to be plausible, and to create some difficulty: But yet there is nothing in it what serious and after reflection will not easily remove, which were no hard matter to shew, if my design and leisure did not hinder me now. I shall at this time only desire the Objectors to consider and say, whether or not there be any difficulty in the Extravasation of the Blood, which is not in each of the following Three Observations I offer to their consideration. The *First* of which is, That ordinary way of separating Waters from Oyls, commonly called, *Filtratio per Elychnium*, where the Water or Oyl, any of them in which  
the

the Cotton is dipped, will by means of the Wool be carried from one Glass to another, without the loss of so much as a drop: And why pray may not the Blood be carried the very same way by the fleshy Fibers from one Vessel to another, especially since the Tonick Motion of the Parts, and influx of the Arterial Blood do help much: Whereas the Experiment with the Oyl, hath no other Assistant, than the gravity of the Air. *Secondly*, That Experiment first tried by *Burnerus de Paner.* and afterwards succeeding to others, as also to my self, does, in my weak Judgement, not a little confirm what I am saying: And it is this, Blow with a Tub into the Weazand of a Goose, whose Intestine being tyed nothing can descend, the Flatus will enter the open Extremities of the Mesaraick Veins, and tend to the *vena porta*. From which Experiment, without any constraint, the following Conclusion I think

may be drawn: That the capillary Veins may be open, and yet no Hemorrhagic or Effusion of Blood will follow. *Thirdly*, This is further made probable *per purgationem menstruum*, where no doubt the capillary Vessels, by which that Excretion does happen, are always patent. There being none, I think, who will affirm, that they, being otherways closed, should at the due and set time get open. If that were objected, I know no other cause that could, with the least appearance of Reason, be assigned for their so doing, save the Blood it self, which being yielded, it could hardly be refused, that whatever gave the Cause the first being, would beyond all question still endeavour its perpetuation, from whence there must of necessity arise a continual Hemorrhagic, the contrary whereof is nevertheless dayly experienced. What needs more, these Anastomoses are repugnant to Reason, and they yet never appeared to the Senses. The

The *Second* of the antecedent Causes, I alledged to be too violent Motions of the Body, I may perhaps also add these of the Mind. It were needless to produce Observations, for proving this my Assertion, there being abundance to be had from the general Collectors, I mean *Forrest*, *Schenkins*, *Hildanus*, and others. I shall rather explain the ways by which they seem to produce their Effects: Which may be the following Two. *First*, By attenuating the Blood, and accelerating its Motion, as well Circular as Intestine: Which is done either by rarefying it self, or by opening the Pores, and admitting calorifick Atoms. Though this last chances very rarely, for it rather happens that the Pores being dilated, cold Particles get entry, by which these Obstructions formerly mentioned are procured: And this, I think, may be the other way too violent Motions work in exciting a Fever,

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In the *Third* place, ordinary Evacuations suppressed come under our Consideration, whose concurrence, I expect, by none will be denied: Seeing that not only Blood-letting prevents, yea sometimes Cures *Continual Fevers*; but also Nature it self does frequently endeavour, and sometimes obtain its own Relief, by bleeding at the Nose and elsewhere. But this, as a thing conceded by all, I shall leave, and rather consider the Description afforded us by our Author, of insensible Transpiration, (it being of all most frequently suppressed) in which he shews nothing of that knowledge and exactness, that might reasonably be expected from an Author of a New Method.

It's needless to mention how impertinently and prolixly he insists not only upon the Invention, Utility, and Greatness of this Secretion: But he must needs discourse also of Chylification, Respiration, and fixed Salts,  
(how



(how skilfully shall be afterwards shewn) all which are transcribed from *Sanctorius, Majou, Etmuller, &c.* and for any thing I can see, upon no other Design, save to enlarge the bulk of his Book: For all that can any ways concern *Fevers* in that large 9. §. consisting of 14 Pages, may be easily contained in seven Lines. Yea surely it must argue no small Folly in a Man, to bring in such stuff as neither the subject requires, nor he himself understands.

*First*, How he makes the Air the principal efficient of *Transpiration*, I cannot understand, for to any considering Man it is evident, that the Ambient, by its Gravity and Elasticity, will rather impede as promote it. But that I may shew him all the Favour I can, I suppose it is rather that, which according to him, is mixed with the Blood in Inspiration, he here intends: Yet in the mean time it is no small Debate, whether the  
Air

Air be mixed with the Blood in Respiration or not? as he may see in *Harvey de Circ. San.* *Higmore Disq. Anat.* *Needham de Form. Foet. &c.* And really it must be confessed, there want not Reasons on both sides. However grant it were so, none who hath the least knowledge in Physiology, will call it the efficient Cause of Transpiration: That being acknowledged by all, to be nothing-else, as the circular Motion of the Blood, which nevertheless noways depends upon Respiration, as *Maurocordatus* would have it. The Doctor may make the Experiment in himself, it being in his power, to stop his Breathing, though not the Bloods Circulation. Ay there is no School Boy in the Kingdom but knows, that by Runing the Circulation is accelerate, the Pulse augmented, and insensible Transpiration intended to Sweat.

Secondly, By what Figure our Author comes to call that no natural  
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Excretion in the 128 Page, which in the 119, he says, and that truly, does twice exceed all other Evacuations whatsoever, perhaps he himself hardly does know: Unless it be for the Reason immediatly after Page 128 subjoined, *viz.* That Sweat is only profitable in so far as it shuns a greater Evil, was ever such Reasoning heard? For what pray are all other Evacuations natural! or are any whatsoever natural. Nay, really by this New Method of Reasoning they are not.

*Thirdly,* Who will ever believe, that insensible Transpiration suppressed, condenseth and thickeneth the Blood, while in the mean time, except what goes to the Spirits, its thinnest and subtilest Portion is thereby retained, and so by its abode does rather render it thin and aqueous, than crass and viscid. Yea all Practitioners whatsoever advise Sweating as a fit and proper Expedient to render the

the Blood thick, and consequently its suppression (insensible Transpiration and Sweating differing only *secundum majus & minus*) must have the contrary effect in making it thin, Will the *Doctor* answer, These condensed Particles being absorbed and carried back, do of necessity render the other more viscid. But to this I reply, These by their being suppressed, do not only impede the Excretion of Twenty times as many thinner and watry ones, and thereby abundantly compensate their own thickness; but also it will appear no great Paradox to say, that these crass and absorbed ones, are by the far greater quantity of the Blood and its continual Motion, reduced to their former and limpid condition. By all which it is clear, that insensible Transpiration suppressed, rather attenuates as thickens the Blood, contrary to the mind of the *Author* of the *V. S. P.* 126. And hence I conclude, that all or  
most

most part, the stopping of insensible Transpiration does in procuring *Fevers*, is only, by creating Obstructions, and so disturbing the Blood in its Motion.

The *Last*, and by far the most frequent, of the Four named antecedent Causes of *Fevers*, viz. Crudities conveyed into the Mass of the Blood, do as yet remain. To insist in proving of this, which is universally acknowledged, were a meer consumption of Time and Paper. Yea, from hence it is, that the generality of the Moderns have perswaded themselves, that the Formality of a *Fever* consisted in a Fermentation: Conceiving this Heterogeneous Body under the Notion of a Ferment, which, when it could not be assimilate to the Mass of Blood, did therein raise an Effervescence. I gave my Reasons before, why I could not fight under their Banner, who delight in the Terms of Ferment and Fermentation,

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tion, therefore shall not repeat them here.

I think then, in few words, a *Fever* may not be ineptly conceived, as a Wrestling or Strugling betwixt Nature and what is Heterogeneous thereto, under which it does either succumb or expel whatever is offensive and injurious to it.

There are Two Things here to be noticed ere I further proceed: *First*, When I speak of Crudities transferred to the Blood, I understand not only Crudities proceeding from the first ways (though I easily grant these to be the most ordinary, which may be inferred not only from the great efficacy we find in Emeticks in the Cure of Continual as well as Intermittent *Fevers*; but also from the great Hurt daily observed in them both, by Errors committed in the first Digestion) but admits also morbifick Atoms or *Effluvia*, which may enter either by the Pores or Respiration, from the ambient

Air:

Air: As likeways Raments from Ulcerous, Scirrous and Gypseous (pardon these uncouth Terms; for I can give none more plain) *Viscera*.

*Secondly*, I must own my dissent from these, otherways Learned Men, who are pleased to call this Ferment, as they speak, always Acide. For as I could never forgive them, who endeavour to build all upon no surer Foundation, as an Acid and Alkali; so I can hardly either pardon these, who trouble us so much with them in Physick. And that for many Reasons, (without which I'll deny no Mans Hypothesis) but especially the following Three. 1. Their Experiments and Arguments prove no-ways what they are brought for. 2. In their Explication of both Acid and Alkali, they are still very obscure, and could never satisfy me, yea I believe hardly themselves. And 3. A great many Phænomena, *ex. gr.* Gravity,

Levity, Colours, &c. Are by them unaccountable.

But besides these Reasons against the Hypothesis in general, I shall endeavour to obviate the Arguments produced for it here in particular. The chief of which I take to be the following Two: *First*, According to the different degree and increase of the *Fever*, the Urine is also observed to intend and heighten its Colour, and that not unlike to those who are impregnat with Acids, *v. g.* Vinegar, Spirit of Salt, &c. To which I answer, by granting the whole, though not always, yet frequently to be so; as also that it may perhaps be, that this Ferment may sometimes prove *Acide*: Yet that this change of Colour is always, and only the Effects of Acids, I positively deny, seeing by Saline and Sulphureous Agents the same may be wrought, and dayly is *in statu sano*, in which, nevertheless no Acid has ever yet been observed.

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In a word, they commit that general Error in Physick, as well as in Philosophy, of forming from particular Experiments general Hypotheses. So observing Acids and Alcalies to Ferment, they have laid it down as an universal Axiom, that wherever Fermentation is found, there must of necessity an Acid and Alcalie exist; while yet succeeding Experiments inform us, that very high Acids. *v. g.* Oyl of Vitriol, Butter of Antimony, besides many others, which can be instanced by such as are acquaint with Chymistry, will effervesce together.

Their other Argument, which is of the same force, is taken from the great and good Effect of Salts, (*Salia fassa* I mean, which are composed of Acids and Alcalies, and constitute a Third very different from both) Testaceous and Alcalick Powders in Curing of Fevers: Which being contrary to Acids, makes them conclude (*dum contraria contrariis curantur*) the

morbifick Cause to be always soure: To this it may be replied, That they fall into the same Fault, which was reprehended in the former: *viz.* Of drawing universal Conclusions from particular Premises. For I can safely say, that Acids themselves, *v. g.* *Spir. salis, Elyxir Vatrioli Mynsichti, &c.* are frequently, and that not without desirable success imployed in Fevers.

It were very easie yet further to move a great many Arguments against this Hypothesis: Such as an artificial Fever excited by the Inunction of the Oyl of Beets, Fevers not unfrequently owing their arise to Fear, Anger, &c. but I suppose it needless. Having already insisted longer on this as I designed, I proceed to the Division, after I have told, what every person, at least Physician, knows, that the Procatartick Causes, which give occasion to the Antecedent, and set them a working, be the *sex res non naturales.*

I shall neither trouble my self nor my Reader, with that infinite Division of *Fevers*, to be had in *Sylvius* and others; thinking it enough to consider the following Four, under which all others may be easily comprehended.

And *First*, They are divisible into Continual and Intermittent: Which Continual may again be divided into these called *Continentes*, which from the beginning to the end, without all exacerbation, observe the same Schem: And into these called *Continuas*, which never leave the Body without a *Fever*, but yet have Exacerbations, sometimes once a day, and then they are called, *Continua Quotidiana*, sometimes once in two days, when they go under the Name of *Continua Tertianae*, &c. And to me they appear nothing else, as a Continuent and Intermittent *Fever* joined together. *Secondly*, *Fevers* are divided into Benign and Malign. *Thirdly*,  
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Into Acute and Lent. And *Fourthly*,  
Into Primary and Secondary or Symptomatick.

All that hath already been said is concerning Continual Fevers, and applicable to them: So I proceed to consider these called Intermittent, which have created as great Trouble to Physicians in this Age, in assigning them a true and congruous Cause, as they did to these in the former, in finding a proper and successful Cure. I cannot now stay to cribrate the various Sentiments of different Authors, but shall propose what to me seems most probable, which in few words is this: Every Paroxysm of an Intermittent Fever, is Analogous to an Intire Continual one, and hath its arise from Crudities carried through the first Ways and *Vasa lactea* into the Mass of Blood, in which, they being thereto hardly assimilable, raise and excite these Tumults before described. And do now constitute a Quotidi-

tidian, now a Tertian, now a Quartan, &c. at one time an Erratick, at another time a Periodical Fever. *First*, Because of the Matter, which is now more copious, now more scant, now crasser, and thicker, now thinner and fluidier, in one person at certain, in another person at uncertain times, thither transferred. *Secondly*, Because of the diversity of the subject, the Blood of one being easier set a working as that of another. In a word, when ever there comes so much Matter to the Blood, as can raise a struggling therein, a Paroxysm is produced. But after all, I think no shame to confess, that there occurs to me somewhat here which seems unaccountable, and therefore I shall never obtrude upon others, what I do not enough understand my self.

Benign Fevers are these called Continual, but not accompanied with these horrid Symptoms, which being present, do give them the Name of  
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Malign. And such are great Anxieties, Inquietude, sudden Prostration of the Strength, Spots, cold Sweats, Tumors about the Glands, called *Parotides*, &c. In enquiring after the Cause of these *Malign Fevers*, I can find nothing save obscurity in the different Opinions of Authors: While some, with *Willis*, fancy to themselves a great Coagulation of the Blood: Again others who follow *Sylvius*, strive as much for a lixivious and urinous Acrimony of the same. *De la Font* pleads hard for an Arsenical and Corrosive Poyson inspired with the Air. For me, in such ambiguity, I willingly profess my Ignorance: But still enclines to look upon their Cause as always Epidemick, coming either from the Air, Meat or Drink: And whenever it effects, seizeth especially upon the Head; we ordinarily observing Symptoms of the Brain to insult, whilst Pulse and Urine suffer small or no change. And hence I suppose  
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is the Proverb, Good Pulse, good Urine, and the Patient Dies.

Acute Fevers are such, as terminate against the 9, 14, 20, or 21. day: But continuing no longer as the 7, they are called Peracute: Yea, sometimes they Kill in the Third and Fourth Day, and so get the Name, (and that deservedly) of *Peracutissima*: While these, who extend themselves to the 40 day, are termed *Acuta ex Decidentia*. And all that exceed this Term whether Fevers or other Distempers, have obtained the general Denomination of Lent or Chronick Diseases: It is certainly beyond all question, that this Diversity ariseth from the weakness or strongness of the morbidick Matter, which in Lent Diseases, at the beginning, brings little or no alteration to the Humane Body, but through procel of time, partly by defatigating the Body, partly by rendring more of the Blood like unto it self, proves exitial to the Patient: which

Which is too frequently seen in a He-ctick, it being of all *Lent Fevers* the most formidable.

*Lastly*, *Fevers* were divided into Primary and Secondary or Symptom-atick. The first are such as have their Cause within themselves, and own their Being to no other Disease, as do the others called Secondary or Symptom-atick. Which be sometimes excited by pain, as in the Gout, Gravel, &c. sometimes they accompany Wounds, Inflammations, Ulcers, and many other Maladies: By all which the Motion of the Blood, as well Circular as Intestine may be augmented, and that which we call a *Fever* produced.

In the Page 185 of the *V. S.* the *Doctor's* Exactness, and great Skill in Physick is very conspicuous: For there he asserts *Fevers* and Tumors ( I suppose he means Inflammations, Tumors being of a large extent ) to be perpetual Companions: So that  
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according to his Pathology, the one cannot exist without the other. Whereas all the World knows, yea daily finds it, that *Fevers* can exist without his Tumors, yea not one of ten Thousand, without all Hyperbole, hath them. True it is indeed, that Inflammations are ordinarily (yet not always) followed by *Fevers*, and they are among the number of these I called Secondary or Symptomack.

Many Things appertaining to *Fevers* and their Theory, as Symptoms, Prognosticks, &c. do as yet remain. But I being far from presuming to give a particular Account or Description of that Disease, knowing it to be a Load too heavy for my young and tender Shoulders, finds my self nowayes obliged to mention them here: My purpose being only to give a general, and for what appears to me, the *easiest* and best Description of the Malady, into whose Method of Curing I resolve to inquire. Neither will

I labour (it being more my desire to do well my self, than to discover that others have done ill) in refuting the Opinions of others, as the *Doctor* doth, though with Arguments I confess. sometimes against, but as often for them.

Yet I must pass some Reflections upon the *Doctor's* New and Mechanical Hypothesis, lest my passing it by should offend its Author. And to speak ingenuously, his description of the Disease is as obscure, as his Method of Curing is dangerous. Have then the Scheme of the New and Mechanical Hypothesis in the Author's own words, P. 104. "Seeing then (for the five Pages which go before, contain only the Foundation, though very unproportionable to the Noble Building afterwards erected in little more as one) the returns of Reparation to the parts and functions ought to be made, both in time and quantity in proportion to the  
"waste,

“waste, by the efflux of the arterial  
“Blood from the Heart as the *Vehicle*,  
“and thorow the *Arteries*, as the  
“*Conduits* of these Recruits: When  
“this is done *Vegetly, Integrally*, with-  
“out any stop or delay, then redounds  
“*Felicity, Ease, and Integrity*, of the  
“*Functions and Life*: But when that  
“*Efflux* is retarded or stopt, either  
“by reason of the Blood it self, or  
“some stopage in the Extremities and  
“small Channels of the Vessels; or  
“by reason of immoderate and unu-  
“sual waste, beyond the proportion  
“of the ordinary supply, (as falls out  
“in immoderate Exercise and Moti-  
“on) And, so I say, when by rea-  
“son of any of these Causes, the  
“Heart cannot convey and lay in the  
“desired Supplement in due propor-  
“tion and rimously, by Stroaks re-  
“peated at the usual Intervals, then  
“it does, by precipitating the Stroaks,  
“and straitning the Intervals of the  
“*Pulsations*, endeavour, what in it

“lyes, to overcome the slowness of  
 “the Motion of the Blood, and to  
 “come so near as it can to the due  
 “and proportionable distribution of  
 “*Nutrimēt*, in respect of the waste:  
 “But if, notwithstanding of these  
 “*sedulous Endeavours* of the Heart by  
 “redoubling of the *Pulsations*, that  
 “slowness of the Blood, shall by a  
 “gradual encrease of the thickness;  
 “and of Obstructions in the *Capillary*  
 “*Vessels*, prove yet so obstinate as still  
 “to be augmented, then this leads  
 “straight to the Porch and Gate of  
 “Death; Death being nothing else  
 “but a total and permanent Cessation;  
 “and defect of this distribution.

Behold the Description of a Disease;  
 and it never once named! Is this *Do-*  
*ctor* because it is so clear, that who  
 runs may read it? surely then my  
 Capacity is very shallow: For had  
 not the Title of that 7. *Seet.* promised  
 a New and Mechanical Hypothesis,  
 I should from this Description never  
 have

have inferred it, and had not the very next Paragraph proposed an Objection, I should further have looked back for it. Yea I believe it would puzzle your self, were it not for these Marks, to find it. For my part, I see nothing here described save Death, and that perhaps not undeservedly, for by means of the New Method Death and Fevers are become Synonima, and so the one with you, may safely go for the other. But Thanks be to God, it is otherways with us, who walk in the Good, Old and Experienced Path, where it becomes but sometimes a passage unto it.

But why, pray, a New Hypothesis? it being as old as since *Bontekoe* write *de Febrisbus*. It is indeed very hard to know that Author's proper Opinion, he being more taken up in refuting others, as in explaining himself: And what he hath said is so harsh and obscure, that he can scarcely be understood; yet, if I be not deceiv-

ed, he endeavours to evince a thick-  
ness of Blood in Continual Fevers.

Leaving this I go to things more  
serious, where it seems to me not im-  
probable, that one of the fundamen-  
tal Errors into which the *Doctor* him-  
self hath slipped, is that which I have  
noticed before, *viz.* The drawing  
of universal Conclusions from parti-  
cular Propositions: For by what I can  
learn from this Description, it being  
indeed very hard, at least for me to  
draw any thing therefrom, he would  
gladly perswade us that Obstructions  
and only they, are the Antecedent  
(and for what I can see the Conjunct  
to) Cause of Fevers. The contrary  
of which, not only innumerable Au-  
thors with infinite Examples have e-  
vinced: But I my self have shewn a-  
bove, that there can be, and frequent-  
ly are other Three, besides many  
more by me over-looked. This is in-  
deed a Rock upon which many excel-  
lent Men have split, therefore to be  
par-

pardoned in our Author, and to dissuade him therefrom, to the Observation I gave before, I shall now join other Two.

And First, There was nothing more ordinary, as upon the seeing Acids coagulate, to assert, that wherever Coagulation hapned, there must of necessity exist an Acid: While yet after Experience did teach us, that Alcalies can crudle Milk, and Spirit of Wine coagulate Humane Blood. In the like manner, Practitioners having found the good success of Acids at some occasions (for they do it not always, as *Poterius* observes) in quickning the Digestion, precariously they conclude an Acid Humor the principal Agent in Chylification: Yea, as *Morbis* observes, it was received with so general Applause and Consent, that it became almost Heresie to call it in question: Albeit later Anatomists have not only demonstrate, that Alcalies and Urinous Bodies may have the

the same, yea greater Effect, but have intirely banished the famed Acid its fictitious Office. To shut up all, it is this, that hath given occasion to a great many Errors in Physick as well as Philosophy, viz. That *Phænomena* peculiar to this or the other subject, have been generally applied to all kinds, and so from particular Experiments and Observations, we have formed universal Hypotheses.

*Secondly*, I cannot conceive how Obstructions can be either so efficacious or so frequent as the *Doctor* insinuates. I shall not make use of the ordinary Objection, which nevertheless is of no small force: That there can be no Obstruction without a subsequent Tumor. However I wish the *Doctor* had told us, in which of the Vessels, I mean Arteries or Veins, these Obstructions fall out. For first it is to me unconceivable how they can be in the Arteries; seeing nothing enters them, that hath not first run through



through the small milky Vessels, from thence to the *Ductus Thoracicus*, which empties it self in the subclavial Vein, and that again by the *Vena Cava*, into the right Ventricle of the Heart, out of which it is conveyed to the Lungs by the Pulmonal Artery, and from thence to the Hearts left Ventricle by the Vein of the same Name, from which, as from a Fountain, it is dispensed to the whole Body, by the great Artery and its Branches.

All which being considered, may not I reasonably argue: That surely, whatsomever hath passed these small Lymphaticks, commonly called the milky Vessels, and the capillary Branches of the Pulmonal Vein, will never stick in any part of the great Artery, especially when its strong and frequent Vibrations, do afford great assistance to this its Motion. Yea without stopping the Course of the Blood in the whole Branch, it is  
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altogether impossible, that any Obstruction can happen in the minutest Artery.

The same Difficulties, if not greater, will meet us in the Veins, which are the other kind of Vessels: For if we consider their Figure, we find it a Cone inverted; now no Man of Sense will alledge, that what hath entered the small end of a Cone, as the Blood does in the Veins, will stop in the great: *Ergo*, the Doctor's Obstructions must be denied.

Several other Observations might safely be made on this Paradoxical, as he himself, *P.* 109, justly calls it, Hypothesis: But I shall detain the Reader no longer. Only I cannot omit, that in the beginning of the 8 *Sect.* he perswades himself, that the rapid Circulation of the Blood, is wholly overturned, and yet *P.* 103: where he is giving that which he would have us digest for a New Scheme of Fevers, he boldly, and as I think,

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contradictorily, affirms the Heart to redouble its Pulsations. Which how it can happen, ingenuously I, nor I suppose none else, can conceive: Yea it is clearly repugnant to Reason and the Circulation. Nevertheless I see by the 27 P. of *Philanders second Letter*, that the *Doctor* will needs defend it.

What D. *Black*, or any who carries that Name, may have said against it, I am wholly ignorant, these Books having never come to my Hands. But what I shall do, shall be only this, to give a brief Account of the Hearts Motion and its Cause, and so leave the *Doctor* and others to judge, how reconcilable these Two are: For the Heart to double its Pulsations, and yet not to accelerate the Bloods Circulation.

The Blood that enters the right and left Ventricles of the Heart from the *Vena Cava*, but especially *Pulmonæ*, does stimulate its Fibers: By which Stimulation the Animal Spirits  
are

are brought from the Brain by the Eighth, or wandering pair of Nerves, and being deposed in its lax Fibers, do contract the same, and straiten its Ventracles with so great a force, that whatever is contained therein, is expelled, and thrust into the Arteries in this its *Systole*, by which they are distended and acquire a *Diastole*: After which the same Fibers are laxed, and these of the Auricles contracted, whereby the Blood, these Auricles had immediatly received from the Veins, is dismissed to the Heart, which now, by the Relaxation of its Fibers, is in the *Diastole*: Which Blood does a new stimulate as formerly, and so procures to the Heart a new *Systole*, under which the Blood is again thrust forth into the Arteries, and occasioneth in them a *Diastole* or Beating. So that the Arteries will never be distended, except the Blood be admitted, for they can be the cause of their own *Systole*, but never of their *Diastole*.

Now

Now how can a Man averr, that the Heart can double its Pulsations, and yet not render the Circulation more rapid: Seing except it emit what Blood it had received in its last *Diastole*, it can never obtain a new *Systole*. The *Systole* being nothing, save the contraction of the Fibers, and expulsion of that Blood, it had received in the former *Diastole*. In a word, it is as impossible for the Heart to be contracted in the *Systole*, without expelling the contained Blood, which must of necessity go into the Arteries and cause their Dilatation; as it would be for the *Doctor* to press together the two sides of a Bladder filled with Water, without expelling the contained Liquor.

By which brief and true Account of the Hearts Motion, it may excellently appear, how fitly it is compared by our Learned *Doctor*, in the 27 P. of *Philand: second Letter*, to the ascension of Water in Pumps. The

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true

true Cause of which Phenomenon, ascribed to the Ancients to a *Fugl* *vacui*, being only this: That by the retraction of the Embolus or Sucker, the place which it deserts is left void, or at least the Air therein contained, is noways proportionable to the external, and so not able to resist its pressure. In the mean time the Air having no access to the Cavity of the Pump, does necessarily gravitate upon the Water in which it stands, whereby it is forced to ascend in the Pump, in which, by the retraction of the Sucker, it meets with no opposition, till such a height, as is able (and beyond which it will by no means go) to keep an *Equilibrium* with an equal Column of the external Air, which hath the same superficies, wherein the Pump stands for its Basis, and the Atmosphere for its height. In a word, there needs no more to make Water ascend in Pumps, save to free it from the Impediment if found by the  
the

the Suckers leaning upon it. How bravely this agrees with the Hearts Pulsation, Doctor *Brown* himself may be Judge: However it quadrates as well as the most of his Simile's.

And now while I'm yet upon his Theory, it may be a fit time to give a Specimen of his exactness in Anatomy, Physiologie, and Chymistry. To begin then with Anatomy, his great Skill herein is excellently shewn P. 178, where he pretends to give a Reason, why hurtful to lye with the Head low: Which is, that then, the grosser Blood does ascend, whereas it being higher, the more spiritous only gets up, while the more crass seceeds at the (*N.B.*) *Axillary branches* Excellent indeed! From whom I wonder did D. *Brown* learn, but that whatever enters the Branches of Arteries, is carried foreward to their end, yea how can it otherways be, seing continually, by the help of their second Coat, which is tendinous, they are

constringed, and so at every place and in every moment, give a new *Impetus* to the contained Blood. But yet better Anatomy, for ay till D. *Brown* did write, we have been in a general Error, when we used to say, That the subclavial Arteries, after they had demitted from themselves, three superiour *Intercostals*, the *Mammaria Ventrals*, *Cervicales* & *Muscula*, did go out of the Thorax or Trunk, and tend to the *Artus* or Arms, where they got the new Name of *Axillares* But now D. *Brown* hath discovered our Ignorance, by shewing, that they have their arise from the *Carotides* (otherways it were Folly and Nonsense to say, that the grosser Blood seceeds by them, for except they arise from the *Carotides*, how shall it enter them?) Had the Doctor said instead of the *Axiliars*, that it seceeds to the *Larynx* and *Pharynx*, they indeed receiving a share of that Blood, which tends to the Head; he might have



have concealed his Ignorance, though not given any great proof of his Knowledge.

For so far is it from being true, what the *Doctor* says: That the great Artery is not at all, according to the Ancients, divided into the Trunk ascending and descending; but rather according to the Learned and Excellent Anatomist *D. Highmore*, it is immediately upon its egress from the left Ventricle of the Heart, divided into the two subclavial Branches. Nevertheless it is not all true, what he alledgeth, when he affirmeth that from the right Subclavial both the Carotides do arise: For frequent Experience hath taught me, and no doubt will also do any, who will be at the pains to try it, that from the right Subclavial does only arise the right Carotis, and the left (which, to my knowledge, was never noticed by any) comes neither from the right Subclavial, nor yet from the left;

but is a third Branch arising from the Heart it self, and hath no communication with any of the Subclavials, but far less with the Axillary Branches. I know the Doctor hath this from *Des Cartes*, but really it is too well known, that this great Wit and subtile Man, was none of the best Anatomists, and perhaps it was his greatest Fault, to assert things he thought consonant to Reason, never much caring or considering how they might be favoured by Experience, nevertheless the Doctor when citing him, should have known to discover his Error.

Good Physiology is still the Companion of accurate Anatomy, as is also to be seen in the Doctors New and Ingenious Hypothesis of Chylification, which P. 131. is most dextrously explained, by a Grinding and attenuating the Aliments, their parts one against another by the contraction of the Ventricle whereby it seems

seems the Doctor would grate them  
to Chyle. But I would willingly  
know, if ever he, or any Man else  
observed a solid Body turned into a  
Fluid, except it were Ice, Butter and  
and such like, which have been Fluid  
before, by meer attrition: When  
ever the Doctor affords me one in-  
stance (for that of a Plume looks like-  
er expression as Attrition) then, and  
never till then, I'll grant his whole  
Hypothesis. Moreover for what end  
is all that Apparatus of Glands in  
the Stomach, and why do Physicians  
advise the swallowing of the Spittle  
with large drinking at Meat, as great  
helps to the digestion, if it happen  
by meer Attrition: For certainly  
the harder any thing is, it is so much  
the fitter for Grinding; or else the  
*Authors Idea* thereof, must be quite  
different from the Vulgar. And  
really what is brought from the Inge-  
nious *Papins Digester* does rather re-  
fute as confirm, what it is brought for.  
The

The Gelly being produced, not by the Bones mutual Attrition, but by the Waters dissolving and extracting. Yea if I remeinbor right (it being now a good time since I read that Book, and not being at Home I cannot consult it) the Ingenious *Author* himself calls it Extraction, which all the World knows is quite different from Attrition.

Of the same kind is that account of Sanguification, which in the 180 Page of his *V. S.* he is pleased to communicate with us. We are indeed extreamly obliged to him, at least for his good Intentions, for labouring in a few Lines to accomodate that Difference, which hath caused almost bloody Contests for so many Ages. I cannot enough admire the Policy of the *Doctor*, who prudently (knowing most Debates to be about Words) conceals these invidious Terms of Organical and Similar Functions, they having given occasion to no small strife:

strife: Whilst some with the Ancients, plead hard for the former, others, after *Glisson*, cry as loud for the latter. However, albeit our Author hath not been so ingenuous as to confess it, the *Ætiology* he gives, makes it purely Organical, only what some ascribed to the Heart, others to the Liver, the Doctor attributes all ennerly to the Lungs. But pray, what does the Duty in the Foetus, where during Nine Months, the Lungs lye intirely idle: For I doubt nothing, but the Doctor knows the *Foramen ovale*, (which does not go from the *Vena Cava* to the *Vena Pulmonalis*, as is generally affirmed, but rather terminates in the left Auricle it self) and *Canalem Arteriosum*. Now I hope the Doctor will never say, that Sanguification is the work of the Lungs, when the Blood is made for Nine Months in the Foetus, and they never once concurr. After the Doctor hath considered and soundly answered this

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Objection, if I can raise no other against it, I shall adopt his New Hypothesis. But till such time, I expect he'll not be offended, if I shall assert Sanguification to be a Function partly Organical, and partly Similar. *i. e.* in the Liver, Reins, Pancreas, &c. Such Particles as could not turn into Blood, are deposed, and so its Organical: Also by the continual Motion thereof, the sulphureous and nobler Particles of the Chyle, are assimilate to the Blood, for which it is called Similar.

Yet I am so ingenuous as to grant to the *Doctor*, that Sanguification hath more help from the Lungs (the Blood descending always more florid and brisk by the *Vena Pulmonalis*, as it did ascend by the Artery) as from any other part whatsoever: Nevertheless they concurr only as an Instrument with many others, albeit they may perhaps be the principal.

As for that Argument so much insisted on, by the Learned *Glyson*, it creates me no great difficulty: For albeit I cannot but grant, ocular Inspection having demonstrat it to me, that the Blood appears in the Embryo, before any Organ, and so consequently cannot be made by that, which is posterior to it self. Yet I still think, there is great difference betwixt Sanguification in the Foetus and in an Adult Person: For in the former, it is not simple Chyle that is converted into Blood, but that which already circulating in the Mothers Body, hath demitted its Bile in her Liver, its Urine in her Reins, &c. by which it is disposed to turn into Blood. So that if it had not experienced already the organical part from the Mother, the similar action in the Foetus should hardly have produced the effect. For, which I hope none will deny, as the same Subject may be differently affected by diverse Agents, so the same

same Agent will produce divers effects upon various Subjects.

As expert seems the Doctor to be in Chymistry, as either Anatomy or Physiology. In all his Book there occurs nothing, that favours of that Noble Art, save one passage from *Helmont* and *Tackenius*, which without any prejudice to either Author or Book might have been omitted, it being beyond all debate now, that alcalizate or fixed salts, are not formerly preexistent in any Body, being only produced by the acting of the Fire, so cannot as the Doctor would have it, be dissolved and extracted by the Aire, before they exist. He ought rather to have said, That the Saline (there being a great difference amongst Salts) and Sulphureous Atoms, which by joining together, do constitute fixed (they not being Natural but Factitious) or alcalizat Salts, while the Herbs are a drying, exhale and fly away.

As-



After having dwelt so long upon the Theory of *Fever's*, it's time to proceed to their Method of Curing. Which indeed is the principal Thing, it being no great Matter how wild a Mans Opinions be in Speculations, providing he do not apply them to practice. No Man must expect here a Description of all the various Indications, which may, and ordinarily do require Attention in a dogmatick and methodical Cure. My design being only (as I often said) to propose the Good, Old, Rational and Successful Method, and to vindicate it from D. *Brown's* Objections: who hath not himself, albeit the Author of a New One, noticed the half, of what deserves consideration in a Rational Cure.

Which nevertheless I'll readily grant in some Epidemick Constitutions or Seasons, and in certain Subjects, especially where the Critical Motions of Nature happen *per seces-*

*sum*, which is not once in a hundred times, to prove unsuccessful. This only I would say, that it is the most frequent, and therefore deserves the Name of the best Method: And where nothing happens about the Patient that is singular; it ought always to be practised.

Before I go further it will not be impertinent to lay down some general Axioms, which being founded upon sound Reason, and frequent Experience, have extorted Assent from, and Credit with Physicians of all Ages: Nevertheless they are not understood, or rather not much regarded by our Learned *Author*.

1. Cures are threefold 1. *Cura Curatoria*, which respect the Contingent Cause, as in *Fevers* and all acute Diseases. 2. *Præservatoria*, which especially regards the Antecedent Cause; *ex. gr.* in a person troubled with Gout, Gravel, &c. after the removal of the Paroxysm, we Purge, Bleed,

Bleed, &c. to prevent the Accession of another. And 3. *Cura Palsativa*, v. g. in a Patient troubled with incontinency of Urine, which cannot be Cured, the Sphincter of the Bladder being lacerate, we apply such an Apparatus, as *Van Heer* in his Observations provides for such a Strait.

II. *Indications* ordinarily (sometimes they be more, but they are only particular) are Three. 1. *Indicatio Curatoria*, which levels at the Disease and its Continent Cause. 2. *Conservatoria*, preserving the Strength, that being by all means to be cherished. And 3. *Mitigatoria*, for it is principally occupied against the urgent Symptoms: Such as Thirst, Pains, Watching, &c. which being sometimes more troublesome as the Distemper it self, do require Attention, even with the neglect of the primary Disease.

Some indeed there be, who have denied this any room among *Indi-*

*cations*, alledging that the one being removed, the other will necessarily cease, Symptoms following only the Disease, as a shadow does the Body. But to this moment, I never heard of any, who refused an *Indication* to the Continent Cause and Disease it self, as Dr. *Brown* in the 71 Page of the *V. S.* hath precariously done. *Where leaving the Essence of the Disease, he prosecutes the Antecedent cause.* Can any Person that knows or hath a respect for Physick and Physicians, read or hear this, without offence? And this really is the Fountain, from which many of his Errors do flow.

But consider Doctor, and I intreat you, as you love your Neighbours Safety and your own Quiet do: Continual *Fevers* are not Intermittent, in which the Antecedent Cause continues in the first ways, and from thence is gradually and successively carried into the Blood; so that whoever can take away the Fomes, may expect  
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in all reason, to prevent the accession of a new Paroxysm, though never hinder the present. Whereas in *Continual Fevers*, the whole Antecedent Cause is *Semel & Simul* carried into the Blood, and excites the *Fever*: Which we must especially regard, and not the Antecedent Cause, which now is not, it being turned into the Continent. Further when the *Doctor* is called to a Patient, is it to Cure the present *Fever*, or to prevent a future? If it be to prevent a future, then he does well, to look to the Antecedent Cause, which still respects the future; and so he institutes that Cure, in the first Axiom, called *Præservatoria*: But if it be to Cure the present, then Sense and Reason require that he should level at its Continent Cause and Essence. Whereas according to the New Method, the present Distemper is committed to Nature, while the *Doctor* only labours to prevent a future Evil, which reat-

ly, as I am informed, he does sometimes very successfully, by putting them beyond all fear of Misery, as well as Happiness, except what's Eternal.

III. The Third of our Axioms is: *That Contraries are Cured by Contraries, and the like preserved by the like.* By some a Controversie is here again moved, as if Diseases were sometimes Cured by the like. *v. g.* an Hemorrhagie by Bleeding, a Flux by Purging, &c. But it ought to be considered, the question is not about the Disease and its Remedy, which may indeed sometimes prove alike: but betwixt the *Indicans* and the *Indicatum*, or that which indicates, and that which is indicated, they still being opposite: Looseness ever indicating binding, it matters not much, by what mean it be done.

IV. Whatever is natural ought to be preserved, and that which is preternatural must be removed.

V. Of

V. Of two Evils the least is to be chosen.

VI. Critical Evacuations are wisely to be discerned from Symptomatical. The not distinguishing of which, is a matter of great Moment, and of bad consequence, while it brings the Physician into the greatest of difficulties and errors, as well as the Patient into the greatest of Hazards. Out of which nevertheless both the Physician and Patient may be easily extricate, by rightly ponderating the following four 1. The times of the Disease are prudently to be noticed, the Coction and Crudity of the Humours, discernable especially in the Urin, must exactly be observed: the Evacuation which happens in the beginning of a Distemper, with the signs of Crudity being still Symptomatical. 2. The place where the Evacuation happens signifies much, for if it chanceth in a place, whither Nature in that Malady useth to tend, other

other things concurring, it is still convenient. So a loose Belly is alwayes more suspected in a Feaver as sweat, this being natures ordinary path in that Distemper, whereas a Flux is still looked on as dangerous: And if there were no more as this: Natures own Course, it is sufficient to evert the whole new Method. 3. The quality of the Humour voided, if such as it ought, is to be noticed: And 4. Neither should the quantity be neglected, for larger Evacuations make us still affraid,

VII. Whatever is to be evacuated, drive it to the way it most tends, according to the 21. of the *first Section of Hippocrat's Aphorisms.*

VIII. Concocted, not crude Humours are to be expelled by the 22. *Aphorism of the same first Section.*

IX. The Times of Diseases are precisely to be noticed, it being safe to do at one time that, which is perfect Death at another. Which times are



four the *Beginning*, the *Increment*, the *Status* and *Declination*.

X. The vast difference betwixt Purges, is also worth the considering. Some being so Gentle that they only evacuat the Ventricle and first ways, never reaching the Mass of the Blood, and are ordinarily designed by *Laxantia*. Others tend farther in the Body, precipitat the Serum, and properly are called *Purges* or *Catharticks*. Which division of Purges, acknowledged and admitted by all, Will, I hope, stand us in no small stead.

At length I come to the Method of Curing, wherein, to keep close to the matter, according to the second Axiome, a skilful Physician proposeth to himself these three Indications. 1. To remove and expell the Disease and its continent cause, as preternatural. 2, To preserve as much as he can, the Strength, it being natural: And 3. To mitigat the  
urgent

urgent Symptoms if any such appear. I am abundantly sensible, that there occure many other things in a Febrish person, which require attention: But, as I said before, these are the ordinary and general indications, and under them most others may come, therefore can only be treated of in a general Method.

For the Removal of the Disease and its cause, it will be convenient to remember, what was formerly said concerning the Nature of *Fevers* in general: When I asserted their Formality to consist in a preternatural Exagitation of the Blood, being most frequently thereto excited, by Heterogeneous Atomes transferred into it. Therefore to ende vour the Removal of the Disease, is to lay this commotion, and to expell the cause, is to banish the Body, whatever it is that sets the Blood thus a working.

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And this we labour to accomplish by several means and Medicaments, as well Alterants as Evacuants, but concerning the last, I am now especially engaged. As to the second Indicant, of preserving the strength, and the third of mitigating the Symptoms, the Doctor and I do agree, at least his Book contains nothing of them. Therefore I, whose only purpose it is, to defend as much of the Old Method, as D. *Brown* does molest, and to refute his, wherein it goes opposite thereto, am no ways engaged to treat of all, that in an accurate and exact Method, ought to be practised.

Especially I said by Evacuants we remove the Disease and expels it's cause. Among which the first that offers its self to our consideration, is that Noble and excellent Remedy, if duely and skilfully applied, of Bleeding. Which as the Doctor observes *P. 147.* is granted by all as very beneficial.  
And

And if this be true, as certainly it is, the *Doctor* hath given us no new Method as to this part, and so might have spared his Labour in Writting a Book, to convince the World of that, of which never Man doubted. When and how often the *Doctor* useth this Remedy, which was absolutely necessary in an accurate Method (there being four very different times as the 9<sup>th</sup>. Axiome observeth) he does not inform us, and therefore I can say nothing against him.

However I must not omit, to reprehend that Vulgar as well as pernicious Error, of Bleeding all persons and in all *Fevers*. For so long as a Plethory is the only Indicant of Bleeding (of Revulsion, Derivation and Exploration, which do frequently call for and allow of the same, I am not now speaking) it can never safely, and with advantage to the Patient be Administrat, but where that Plethory is. So that if a *Fever* fall out in a Young  
and

and robust person, where any natural Evacuation is suppressed in one using a good and laudable Dyet, in a word, where the way of Living, or any other circumstance may perswade us of abundance of Blood, no doubt the Physician does wisely, who adviseth it's Eventilation, if he cannot set a working the natural Evacuation it self: Providing it be in the beginning and Increment of the Malady, otherways when Nature is endeavouring her own Liberation, he may be apt to disturb her Motions.

But that rash and inconsiderate Course of Bleeding, without any difference, subjects of all Ages, Constitutions and Sexes; is a practice which neither Reason perswades to, nor Experience allows of. We all acknowledge, and not without Cause, that our Life and Strength consists in our Blood. It's also confessed, that Nature and Strength do Cure Diseases: The Physician only assisting where

Nature is weak, and directing when she's wrong. Why then do we evacuate that Blood, which we expect should Cure the Disease and relieve the Patient? Ay but say some, with the *Doctor*: The ill Blood comes away and leaves the good behind. I answer, this is a Reason so ridiculous in its self, and so repugnant to the Laws of the Circulation, that hardly any save Gardners, Old-wives, &c. to whom that Noble Invention is a Mystery, will ever pretend it: For whatever comes to the Vein, good or evil, is also evacuate. Yea the Evil is so intermixed with the Good, that till it self have made a separation, no Art can disjoin them. For Example, suppose a sick Man having in his Body Twelve Pounds of Blood, Eight of which are Good, and Four Evil: Now being all circulate through the Heart, at least twise every quarter of an Hour, is there any Man so absurd as to affirm, that only the Evil, and only

*Old and Successful Method, &c. III*

only at that time, will come to the Vein which is wounded, while the Good, being strangely sagacious, and desirous to stay in the sick persons Body, to restore him his Health, will go to the other and remoter places? Is there, I say, any Man so absurd as to maintain this prodigious Fancy? Nay I think it is far more credible, that of the whole Twelve, one Pound being evacuate, two parts will be Good, and one Evil, just as it was in the Body. And all the Advantage, which the Patient by Bleeding does reap, is only this: That before he had Twelve Pounds of Blood, Eight whereof were Good and Four Evil, but now he hath only Eleven in all, whereof Seven Pound with Four Ounces are Good, and Three Pound with Eight Ounces are Evil.

However, the Doctor for his timorous assistance to this decaying Opinion, deserves to be listed with, if not to get the precedence among the

forenamed Medicasters. For, says he, *P. 151, As in a River we observe the heterogeneous Body still to tend towards the Brink, so in the Veins, the feculent and ill Blood runs to their sides, and runs first out, while the finer returns to the Heart.* A notable Invention indeed, to preserve this feculent and exploded Figment! What way, pray, can the fine Blood return? not by the Arteries, that being absolutely impossible, for grant their Motion should invert, which yet no Man of common Sense will imagine, the three Semilunar Valves do still hinder. Neither by the Vein, for your Band put betwixt the Orifice and the Heart stops the passage: So that of necessity, whatever enters the Vein, good as well as bad, runs out at the Wound: For do we not see, that the Ligature being removed, and passage being granted, neither good nor bad appears, a sure Evidence, that it being present, both of them evacuates. When Doctor Brown finds



Ends the third way, he hath gained the point. If the Doctor had only given this, as an Answer to some of the impertinent Questions of a Patient, I could have forgiven him and applauded his Wit; but seriously to propose it in a printed Book, is absolutely inexcusable.

The Chirurgical Fountain, does further supply us with *Vesicator Plasters*, from which, in Fevers whatsoever, we obtain no small Advantage: But especially in Malign, and where the Head is affected, yea in all Cephalick Distempers, their use, by reiterated Experience is approven. But there being no debate about them and their use, I proceed to Pharmacie, which assists us with more Weapons, to struggle against this destructive Enemy.

The *First* whereof shall be *Vomitters*, which, providing they be timously and warily administrate, do oftentimes nip the Evil in the very Bud, and

by striking at the Root, do with one blow dislodge this unkind Guest.

From what hath been said, I suppose, that for the most part, the Antecedent Cause of a *Fever*, comes from the Ventricle. If then in the beginning of the Malady, before the Antecedent Cause, be all transferred to the Mass of the Blood, and there become the Continent, we use this Remedy; we do thereby purge the Stomach, withdraw the Matter, and either extinguish, or at least so notably assuage the Fury of the *Fever*, that after it is hardly ever able to make great disturbance. Nevertheless they are not to be given indiscriminately, but with great wariness, as all other Remedies whatsoever: Albeit the D. in his whole Book, hardly ever mentions one Caution.

And First, We are to consider where the Matter does lodge: For if the Antecedent Cause should be any Evacuation suppress, great Motion and

and the like: There could be nothing more ridiculous than to advise Vomiting. but if it be in the Stomach, which is easily known, by the Hypochondria Swelling, frequent Rifting, Nauseating, &c. they can hardly be neglected, but with the Patients eminent danger. Providing his Constitution, Age, shape of Body, and other Distempers, *v. g.* Hemorrhagy adjoined, do not dissuade it. All which being carefully observed, they are most innocent, as well as powerful Remedies, in the beginning of *Fevers*. It is likewise to be noticed, that if the Circumstances require Bleeding, it ought to preceed Vomiting. lest by the shaking of the Body, some small Vessel burst.

Next I come to *Diaphoreticks*, which I may truly call the universal Cure of *Fevers*. Nature pointing with its Finger to their use, while in the universal Declination of Continual, and in the particular Declination.

tion of Intermittent Fevers, Sweat  
breaks forth in a very great plenty.

This nevertheless is the Method  
which our *Author* rejects, wherefore  
I shall take the more pains to confirm  
it: Which I'll endeavour to do by  
the following Three. *First*, By de-  
claring how they work. *Secondly*,  
By giving some Reasons why we use  
them. And *Thirdly*, By answering  
the seeming Objections instanced by  
*D. Brown* against them.

About the *First*, I need not be  
very prolix, for if we consider what  
Conditions are requisite to insensible  
Transpiration and Sweating in a state  
natural: Betwixt which there is no  
greater difference, as that in the for-  
mer, the Matter is excerned in a les-  
ser quantity, and so absorbed by the  
Cloaths or ambient Air, under the  
name of Vapour; whereas in the lat-  
ter, or Sweat, it chanches in a greater  
abundance, and so cannot be swept  
up, but rather constitutes Drops cal-  
led

led Sweat. I say, whoever will be at the pains to consider the Conditions requisite for this insensible Transpiration and Sweating, while they are natural: Which are Flexibility in the Liquor, a due Amplitude in the Pores, and a Briskness in the circular Motion; will easily understand how *Diaphoreticks* work, when given according to Art. Whatever can either attenuate the Blood in its Consistence, quicken it in its Motion, or dilate and amplify the *Milks Glands* and Pores, will certainly procure Sweat.

And such are either Heterogeneous Bodies mixed with the Blood, which by stimulating the Ventricles of the Heart, the interstour Coats of the Vessels, and muscular Fibers of the Parts, cause frequent Contraction, and consequently swiftness of Motion: or inciding and volatile Medicaments, which partly attenuating and inciding the Mass of Blood, partly amplifying  
and

and enlarging the Pores and Passages, produce the same effect with the former

When I speak here of intending the circular Motion, I mean only that of the Arteries, for both Reason and Experience teach us that the acceleration of the returning Motion by the Veins, would rather prove a hinderance as a help to this, as well as to all other Secretions. *First*, It is clear from Reason, for if the Blood were as readily taken up by the Capillary Veins, as its is brought in by the Arteries, it must necessarily return again to the Heart from whence it came: Whereas admittance being denied by the Veins, it seeks another way or passage, which is that of Secretion. Neither does Experience deny its assent to this perpetual Truth: For if you will tie the social Vein of any Artery, by which Blood is carried to the discerning Organ, *v. g.* the *Vena emulgens*, you shall quickly observe

serve the Secretion to be far more copious, than when the regressive Motion was allowed. So that I may reasonably affirm, *The slowness of the resluent Motion of the Blood by the Veins, to be none of the least among the efficient Causes of Secretion.* And this much for the First.

Secondly, I come to give some Reasons, why in the Cure of Continual Fevers, Physicians of all Ages, have adopted and practised this Method of Sweating: As also why we at this day, especially while D. Brown offers a Surer and Better, do imitate them in that, which, to speak in his Language, is pernicious and destructive to Mankind. Indeed if without Reasons, and these weighty ones too, we should do that, which according to the V. S. can be nothing but horrid Murder, and devilish Malice. In stead of being Cherished, Honoured and Entertained, as in all Ages, and among all civilized People, Physicians have

have been; we ought to be taken and Hanged, for Villains and publick Murderers. But if I can prove our Method to be right, which I'll endeavour now, and his to be wrong; which is to be done hereafter, when discoursing of Purging: Then let him judge, upon whom the Punishment ought to be inflicted.

It were easy to accumulate Arguments in Favours of *Diaphoreticks*, but I shall satisfy my self, and I hope my Reader to, with the following three.

Let us then *First*, According to the seventh Axiome, consider the motion of Nature, I mean the course it takes when left to its self, as in many mean and Indigent People it ordinarily is: And this is continually to seek its own Relief by Sweating, so that not one *Fever* of a hundred and that of all sorts, is Cured another way. Is there any Country Clown so foolish, but in a *Fever*, he'll cry for a Sweat, and if either by Art or Nature



ture he can procure it, he will promise himself speedy Relief and certain safety. Now this being granted the *Dr.* himself not daring deny it, should not the Physicians, who have taken to themselves that modest Denomination of Nature's Servants, and whose duty it is to assist her when doing right, and to Correct her when doing wrong (as by all she is looked upon to do when endeavouring to ease her self by Seige in a Fever, except perhaps once in a hundred times, when it comes critically) should not they I say, imitate her, in Curing Fevers by *Diaphoreticks*, the ordinary, yea I may say, the only way by which she removes that Distemper, yea certainly they should, and that according to good Old *Hippocrats* excellent Aphorisme: *Whethersoever Nature inclineth to go, thither lead her and it conduceth.*

Besides this, it becomes us *Secondly*, to consider the Seat of the Morbifick

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bilick matter in Fevers, which none  
 will deny to be in the Arteries & veins  
 Likewise the conformation of these  
 Vessels deserves our attention: Their  
 Roots being in the Heart, while  
 their Branches tend to all parts of the  
 Body (that I may shun all occasions  
 of Objections, I know that properly  
 speaking, the Origine of the Veins  
 is in the parts, and they terminate  
 with one Root in the Heart) Now  
 let us consider by what way, that  
 which is contained in these Vessels  
 may be best and easiliest expelled  
 Surely any Man of sense and Reason  
 will freely confess, by their Extremi-  
 ties or ends (of *Anastomoses* or  
*Inosculationes* I have said what I  
 thought necessary before) which ac-  
 knowledged, we can not but also  
 grant, that whatsoever part of the  
 Body, manyest of these Extremitie  
 run to, or where most of the Arte-  
 ries end in, there will be the readiest  
 and most natural way, providing

out be as patent as others, to discharge  
ins whatsoever is contained therein:  
self But most of these Extremities do  
their terminate by far in the habit, and  
while that this way is as patent, as any  
the other insensible Transpiration, which  
ons by the Doctors own concession, ex-  
ceeds all other Evacuations of the  
ins Body, no less as three times, does  
ate clearly evince: Therefore from these  
ow premises, I may lawfully conclude,  
that the habit to be the readiest and best  
els way, to expell whatsoever is con-  
dained Heterogeneous in the Blood.

It was not unadvisedly that I said,  
where most Arteries end, there will  
be the readiest way to expell the  
Morbifick matter. For whosoever  
is not altogether ignorant of Anato-  
my, will easily allow, that whatever  
once enters the Veins, can never be  
eliminate, till such time as it again  
run through the Arteries. At their  
small end it cannot be, seeing what  
once enters there, can by no means

return, *First*, because of their valves  
*Secondly*, Because of the tonick motion of the parts. And *Thirdly*, because of the continual Influx of the Arterial Blood. And as it cannot happen at their small ends arising from the parts, so far less can it be at the great end, which terminats in the Heart: Nothing entring its Ventricles in the *Diaſtole*, but what is again thrust out into the Pulmonal and great Artery, in the *Syſtole*: from all which it is clear, that *neither Secretion nor Excretion can be of the Venal Blood*

Yet here, I'll present the Doctor, with a stronger argument for Purging in Fevers, as his whole Book hath done to his Readers. And it is this, being I assert, what no Physician, if he be not destitute of Anatomy and Physiology (the want of which bring inexpressible Damage to Physick) will deny, that, wherever Arteries end, and depositate what is in them

them contained, there must needs happen the Expulsion of the Morbifick matter: But the Arteries, some of them at least end in the intestines. *Ergo*, there in these intestinal Glands must happen the secretion of the Morbifick matter. All which I grant and acknowledge, yea farther confirms, by avowing the *faces Ani* to be not only Excrements of the first, but also of the third and second Digestion, which may be proven by several Observations, one of which at this time shall suffice. *viz.* in the *Fœtus* the *Meconium* is still observed to have its beginning, and greatest quantity in the crass intestines. Nevertheless all this concludes nothing against what either hath already, or shall hereafter be said: Because *First* the Arteries are but very few (in respect of that infinit number which direct their course to the habite) from the *Cœliack* and two *Mesenterick* Branches, which tend to the Intestines. *Second-*

ly, Neither do we altogether, for as little as it is, neglect it, but partly by applying Clysters, partly by giving these Medicaments, in the 10 and last Axiom, called *Laxantia*, drive away what may be lurking in the first ways. But we never give Purges, properly so called, which by entring the Mass of the Blood, do play therein their unlucky Tragedy, except we intend (which God forbid so wicked a Thought should ever enter a Physicians Heart) to send the Patient to the House of all Living. Yea farther, it is with respect to this, that after the Recovery we ordinarily advise Purging.

My *Third* and last Argument shall be, the general Practice and constant Observation of Physicians in all Ages, in all Countries, and of all Perswasions; yea of the Excellent *Sydenham* himself, as shall afterwards be shewn. Who as one Man, acknowledge not only the great Advantage of Diaphoreticks

reticks, but exclaim against the constant use of Catarticks, in the Curing of Fevers. What, would the *Doctor* have all these so ignorant, as that they should not know how to Cure the most ordinary of Distempers? or so malicious and wicked, as when they knew it, yet neither to practise it themselves, nor communicat it to others? or were they so stupid, as not to have known what they used, neither from whence the Cure did proceed? Were there never Physicians so conscientious in the World, before *D. Brown* came to it, as to confess the damage of Diaphoreticks? or were they so blind that they could not see it? Was *Hippocrat*, was *Galen*, *Fernelius*, *Sennert*, *Harvey*, and all the rest of these brave Souls, who have enriched the noble and useful Art, with their curious Observations, excellent Inventions, and judicious Reasonings, were all these, I say, besides many others, who practised this Method

thod themselves, and recommended it to their Successors, Fools or Ignorants? Nay, nay, it is far better to say that D. Brown is both. But of Experience more hereafter: Therefore I go on to the Examination of the Arguments urged by the Doctor against this Old and long Practised Method: Which we find in the 71 Page of the *V. S.* where the Common and Diaphoretick Method is considered and rejected forsooth! and they be neither more nor stronger as the following Two.

*First. We have no Specifick in Continuat Fevers, therefore must not level at the Continent Cause, which is truly the Disease.* According to which way of Reasoning I will go on and conclude: We have no Specifick in any Disease, save *Intermittent Fevers*; therefore except them, none must be Cured. The consequent of the one is as native as that of the other, and truly in both it is none at all. *Physick and Physician*



ficians are obliged to the *Doctor*, for bringing the Imployment to this weak pals. Is not this a strong Argument, to destroy a Theory of some Thousand Years standing? Yet it is as strong as the other to be found in the same 71 Page, where he farther inveighs against this our approved Method, in these words: *Thus indeed were no unfit Design, &c.*

I look upon it as needless to resume, what is formerly said anent *Fevers* and their Causes, which I hope do sufficiently prove the *Doctor's Hypothesis* to be none of the best. I shall rather here observe, that the force of this sham Argument drives at these Two. *First*, That Sudorificks translate the morbidick Matter or antecedent Cause, from the Ventricle, Mesentery and Intestines, into the Mass of Blood, and by that means turns the Antecedent Cause into the Continent. And *Secondly*, That by the same we drive it to the Head, where-

whereby we produce these terrible Symptoms, under which, Nature not being able to overcome, must of necessity succumb.

To which I answer these Three :  
 1. All, save *D. Brown*, do know and confess, that in *Continual Fevers*, the morbidick Matter is in the beginning translated to the Blood, and so does procure the Disease, which otherways we should never have, but only an *Apparatus* to it. Yea in this seems to me, to consist the difference betwixt *Continual* and *Intermittent Fevers* : That in the former the morbidick Matter is translated all at once and so produces one great and *Continual Fever*; whereas in the latter or *Intermittent Fevers*, it is conveyed at several times, and so constitutes several Paroxysms, which may be said to be as many *Continual*, but shorter *Fevers*. By which we may clearly discern, how falsely the *Doctor* alleges, that by *Diaphoreticks* we carry the

the Matter from the first Ways to the Blood, that being a thing already done, else there could be no *Fever*. And really all along it appears, that it is not a *Fever*, but an *Apparatus* thereto, the Doctor would Cure. So that instead of intituling his Book, *A new Method of Curing Fevers*, he should rather have named it, *A new Method for preventing them*.

*Secondly*, How any thing can be more urged on the Head by the use of Sudorificks, I suppose if the Doctor were asked, he could not well tell, it being a meer precarious Assertion, grounded upon no Foundation, and he might with as good Reason, have said the same, of the Hands, Feet, or any other part of the Body. For, as they were only the *Arteria Carotides* and *Vertebrales*, which furnished the Brain with Blood before; So, for ought I know, by the use of Sudorificks no other are added: Neither is there any other way, by which

which any thing whatsoever can be carried to the Head, save by the forenamed Arteries. I hope the *Doctor* is not come to that Pitch of Ignorance to averr, that Diaphoreticks by some occult quality are offensive to the Brain. True it is indeed, that Sudorificks, by intending the Motion, as well Circular as Intestine, put all the Humours, and perhaps the Spirits too, in a little confusion: But this carries nothing to the Head, rather as to other places, which went not before.

But *Thurdly*, Where learned the *Doctor*, that Sudorifick Medicines, had their operation in the Ventricle, Mesentery and Intestines: Can any Man read this without Laughing. Surely this is another Errour, in which Physicians till this time have been in, for they still taught, that Diaphoreticks did work in the Blood, and not in the first Ways. So then to grant, what the *Doctor* desires, which  
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nevertheless so long as Physicians are Masters of Reason will never be: *That the Continent Cause* (for the Antecedent is no more, it being converted into the Continent) *lodges about the fore-named places*; it will profit him nothing, since Diaphoreticks will never awake it, they working only in the Blood, not in the first Ways.

In the 165 Page, the Doctor inculcates a new the damage of meer Diaphoreticks (for I shall do him the Justice to conceal none of his Arguments) and the Reason is this: *Because thereby the Viscous matter is impelled to the Pores in great abundance, and so begetteth new Obstructions.* And, which is wonderful, to prevent this Inconveniency, he adviseth the use of *Paregoricks*, which, as all the World knows, do incrassate extremely, and so instead of weakning the Malady he strengthneth its Hands.

However I would have the Doctor to know, this Fear of his to be vain  
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and groundless, we never forcing the Matter till once incided, and till we observe the Signs of Coction in the Urine, as shall afterwards (God willing) be said. Neither is the Philosophick Comparison which he brings to illustrate this his Argument, beyond all exception: For the greatest Fool in the Kingdom does know, that the Church Doors can be no way dilated or widened; whereas we know certainly, that occasion requiring, the Pores of the Body may be double enlarged and distended.

It is in the 167 Page, where the Doctor runs to that pitch of Boldness, as to exclaim against a Method direct to a *Crisis*, Boldness I must call it, and the Reader will perhaps judge worse of it, when he considers with me, that there be only Four Ways by which Diseases are terminated, whereof a *Crisis* is ever desired as the best. Which happens, when after a wrestling betwixt the Disease and

Nature, the last at length obtains the Victory, and with one blow ejects this its hostile Enemy. Which is done sometimes by Bleeding at the Nose, sometimes by Purging, sometimes by Vomiting, but an hundred times for one, by Sweating. The second Solution of Diseases, is that by Physicians called *Lysis*: When there comes no critical Motion (which is still desired by all, it being beyond all question the best) but rather the Malignity decays slowly and gradually, and this is most frequent in thir our Cold Countries. Thirdly the morbidick Matter is sometimes discussed or translated from one place to another *per Metastasin*, which if it happen to be from a nobler to a meanner, it is good (although it were better to have it altogether expelled the Body by a *Crisis*) but if it chance contrary, is most dangerous. The Fourth and last way of Diseases terminating, is by *Death*, when the morbidick Matter subduing

Nature, renders the organical Body incapable of obeying the Inclinations of the reasonable Soul, so that it must needs forsake its Mansion, and leave it a dead Cadaver. If there be any other way of Diseases terminating, they do not to me now occur, yea after sometimes thinking, I cannot conceive them. Now let my Reader, yea D. Brown himself judge, how good reason he hath to cry out against that Method which aims at a *Crisis*.

Before I leave Diaphoreticks, it will be necessary to inform the Reader, that neither in the Beginning nor Increment of the Fever, we employ them; yea never, till we have once incided and attenuate the Matter with proper and convenient Medicaments, do we use them. And then, when we behold the Signs of Coction in the Urine, we hasten away the Malady, sometimes with weaker, sometimes with stronger Me-



Medicines, just as the Circumstances allow and advise.

It is also worth noticing, that there is no material Difference, betwixt Incisers and Diaphoreticks: For every Inciser, providing its Dose be augmented, will prove Diaphoretick: And whatsoever provokes Sweat, given more sparingly does only incise. Wherefore, whatever hath been said, in defence of Sudorificks, may also be applyed to Incisers: Especially since they are repudiate by the *Doctor*, for one and the same Cause, which to speak the Truth, is none at all.

*Purgings* comes next to be discoursed of, for neither can the Cure of Fevers, always want their Assistance, which nevertheless are not to be advised, as *D. Brown* does, at all times, and of all kinds. Wherefore I shall here shew First, When and how they are and have been employed by Physicians, in all Ages.

*Secondly*, Bring some Arguments against the perpetual use of such of them, as properly go under the Name of Purges. And *Thirdly*, endeavour to obviate any Arguments afforded by the *Doctor* in their behalf.

Before I go farther, I am necessitate to observe and complain: that the *Author* should have Printed a new Method, and yet never so much as once inform us, when, and to what Patients it is, and safely may be applied: Nor yet does he mention the Medicaments he then imployeth, none of which, besides many other things ought to have been neglected by him, who presumed to Write an intire Method, but far less by the Author of a New One. For whoever hath the least knowledge in Physick, cannot but be sufficiently acquaint with the difficulty of purging, where a few hours, some few grains, or some contrary *Indicants*, may readily bring Death to the Patient. And really  
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for my part, suppose I were sufficiently convinced both of the Reasonableness and Success of *D. Brown's New Method* (which nevertheless without other Arguments as I have yet seen, I never will be) yet I durst not upon that trivial and superficial account he gives of it, adventure to use it.

But to return to the things proposed, in prescribing of Purges to persons in *Fevers*, we are to consider 1. The Division of Purges, as it is in the 10 and last Axiome, in *Laxantia & proprie purgantia*. 2. The different times of the Disease, also above in the 9 Axiome specified, are carefully to be observed. And 3. The Malignity sometimes adjoined; is by no means to be neglected; for at certain times to give a Purge when it is present, it is not without great and imminent danger. So that by Physicians of all ages not only the Be-

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gninaig but also in the Increment and status of the Disease, where there is no Malignity present (in which condition the very giving of a Clyster was still suspected) these Purges called *Laxantia*, which go no farther, as the first ways have ever been advised. Which *Laxantia* are sometimes given at the Mouth, and so respect the Ventricle with the rest of the Intestines: but oftner they are applyed in the form of a Clyster, which reaches no farther as the valves of the Intestine Colon, nevertheless by there stimulating, augment the peristaltick motion of the whole, and help the Excretion of the *Fæces* contained therein.

Yet sometimes in the beginning, and before the antecedent cause be turned into the continent, by its going from the Ventricle and first ways to the Mass of the Blood, it may not be improper to advise a Purge: However were I the Physician, I had

rather (if all circumstances allowed thereof) and for the most part, make use of *Emetics*, which do ordinarily cause also three or four Stools. But the use of Purges properly so called, is frequently delayed till the solution of the whole Distemper, if critical Motions advise not the contrary, when (concluding some of the Morbifick matter to be disposed in the Intestines, and adhering to, or in their Glands) strength being somewhat recovered, we use first the help of that Medicine which we could not safely imploy before: For which our Reasons are the following five.

*First*, In obedience to the eight Axiome, Concocted not Crude Humours are to be Evacuat: where again, Nature her Course is worth the noticing, which being left to itself, never expels Humours till once digested, unless with great Hazard to the Patient. and then it becomes the skilful Physician, to stop and hinder her

her wrong & Symptomack proceedings. It is not merely *Hypocrates* his Authority, that makes us decline them in this Condition, but because we see it confirmed with strong Reason and sad Experience: For while the Humours are Crude and indigested, the Heterogenities are so wrought in with the good and laudable matter, that the one cannot be extruded, without the Expulsion of the other: wherefore we rather expect, yea helps their Digestion, that so we may have the Evil separat from the Good.

Neither is this all the evil, that redounds to the Sick, by advising Purging in a state of Crudity, But *Secondly*, When given, they either operate none, or by their working extremely, do intend the *Fever*. This is not said *Grati*, for daily experience confirms it, and that not only in persons troubled with *Intermittent Fevers*, where Purges being given shortly after the ceasing of the Disease, do

do infallibly make the Paroxysm return: But even in sound persons, in whom Catarticks never do their Duty, without raising a great commotion and Exagitation in the Blood. Yea by injecting *Gummi*, or rather *Succus Cori* a most ordinary and common Purge, into the Veins of a Living Animal, we can procure an artificial Fever.

*Thirdly*, By these strong and frequent Purges, the Serum which is the vehicle of the Blood, and by which the Morbifick matter should be diluted, that so it may be the better and easilier excludet, is altogether spent and consumed.

*Fourthly*, by these same reitorat Purges, Nature is extremely weakened and the strength mightily dejected, which nevertheless as a thing Natural, the fourth Axiome tells us ought to be preserved.

*And Fifthly*, Hereby again are the Motions of Nature disturbed, the sel-

seldom or never tending this way, except when perversely and Symptomatically, in which case, *Art*, as it is in the Sixth Axiome, adviseth rather to stop as encourage her.

May other Arguments, such as the Hazard of Superpurgation, the inconveniencie of Purging when affixed to Bed &c. Could easily be urged against this preposterous Method: But they being of less moment, I leave them, till I see the *Doctors Answers* to the five insisted on. Which being rightly considered and pondered, I think it will be no hard matter to guess, with what advantage to the Patient, Purges properly so called, in *Fevers* are used. If the *Doctor* meant only such as I have called *Laxantia*, then he hath given us no New Method: Their use under the Cautions, I gave, being as old as since *Hippocrats* days.

Lastly, I come to the Arguments, by which he endeavours to confirm  
this



this his Method: Which I find P. 76. to be the *Diaphoreticks* are not successful, *ergo* we must Purge: But the consequent of this, *Doctor*, especially its Antecedent being truer, is as good: Purges are offensive, *ergo* sudorificks are necessary. None of them follow, there being no Reason, why, supposing them both unsuccessful, a third may not be chosen. But, proceeds the *Doctor*, without the help of specifics we cannot level at the continent cause: Therefore we must endeavour the extirpating the Antecedent, that thereby we may starve that enemy we are not able to attack. All which is most false, Ridiculous and Dishonourable to Physicians, as is formerly proved, therefore needs not be here again repeated.

His other Motives (to be found in the first Sect.) advising to the embracing of this his precarious Hypothesis, are as destitute of good and

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real Conclusions, as any of the two Arguments just now considered.

Doctor Sydenhame was no doubt, a Man of great Ingenuity, Candor and Experience. and if I thought an Encomium from so mean and despised an Author as I am, could contribute any way to his Praise, I would as willingly confer it, as the Doctor himself. For I think that both this and future ages, are, and will be extremely obliged to his Candor and great Sagacity, which he hath all along manifested in his excellent Writtings, but especially for his *Historia Morbi & Regimen Acri*. And I would to God that D. Brown had been more of his temper, who, without all Reflections on other Physicians, wrote what he had observed in the Latin Tongue. Not that I envy the knowledge of any; for as *Moses* wished all the people of the Lord to be Prophets, so I am much indifferent, suppose all Patients (which in a short time I think may be)

be) were Physicians. Yet sure I am, the publishing of Physick Books in our Mother Tongue, does much hurt but no good: For thereby Gardeners, Old wives &c. acquire as much knowledge as to Kill, but seldom as much as to Heal. In a word, as our Proverb speaks, it is the putting a Weapon in a Mad-mans hand. However I being no more concerned as others, wishes them success in their laudable attempts.

But how D. Brown comes to make D. Sydenham his Defender, or rather how he comes to writ a Book, to vindicat D. Sydenham in that, which he seems never to have practised, is that which I cannot conceive. The *Schedula Monitoria* is not in my hands, neither am I in a place where I can procure it: Yet his *Method of Curing Continual Fevers*, Printed at Amsterdam An. 1666. is; Wherein all along he practiseth the good Old and approved Method: For in the  
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page 27. he adviseth the use of a Clyster only every other day, P. 29. he expressly affirms, that the more bound he can make the Patients Belly, the more he puts him beyond Hazard: His words are so express they deserve to be here inserted, and they are, *quanto magis obstructam illi alvum praestitero, tanto magis eum extra periculi aleam colloco*: P. 36. at length upon the 15 and sometimes 17. day, for the first time he prescribes a purge, and that none of the Strongest.

Now was not D. Sydenhame as Candid, as ingenuous and skilled, when he wrote this as when he wrote the *Sched. Monitoria*: If he was, then what reason can there be for preferring this New Method to the old, seeing both are commended. If he was not, then no man can blame me, for denying assent and Credit to him, who did once so egregiously Cheat me. Nay I doubt nothing, but he was ingenuous in both: the matter  
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being only this, in this *Schedula Moratoria* (to my best remembrance it being some years since I read it) he gives only a description of an Epidemick constitution, which beyond all question, sometime may extremely alter the Scene, and may require a Method contrary to what is ordinary, and which he in his *Treatise de Curand. Fabr: Con.* had both practised himself and commended to others. And by this time I think it is clear, how little reason *D. Brown* hath to boast of *Sydenhams* Authority: No it is a meer Fiction of *D. Browns* to apply to all occasions, what *D. Sydenham* meant only of particular Constitutions.

How can *D. Brown* think to impose upon us at this rate, he must thinke us all very negligent, and so we do not read, or else very ignorant, and so cannot understand what we do Read: Truly it seems we must be both according to his Calculation.

But grant D. Sydenham were of this mind, as it is clear he is not, what then does follow: For we all know and believe, that no honest nor ingenuous Man, will wittingly and willingly cheat or deceive, yet we count it no Heresy to think and say both, that out of ignorance and uncircumspectness he may.

What concerns the unparaelled danger he was saved from: I fear least in using that as a cogent Argument, the Doctor prove himself as ill a Divine, as all along in his Book he he appears to be a Physician. There being no doubt, but that Gods good Providence is still Exercised about all things, good as well as bad (permitting and suffering them to his own wise and good ends) and small as well as great. Yet that special acts of preservation, will either prove the person himself, or the end for which he is preserved, to be good in its self (for I know and believe that God does

does nothing, but what some way or other, tends to his own Glory, as also to His Peoples Good eventually, as the permitting of an Impostor, &c.) and intentionally; is a thing which I very much doubt: For we know *they are the Wicked who prosper in their ways, while the Righteous are chastened every Morning*: And suppose he, and all the Episcopál Clergy in the Kingdom should Swear, that the French King's Deliverance from his Fistula, was for some good end and great benefit to Mankind; yet I shall ever look on him as the Scourge of the True Reformed Religion, which God at length will, I hope, cast into the Fire. And by this way of Reasoning the Doctor will answer *Epicurus* his Objection against Providence: *Car malis bene & bonis male*, by granting the whole.

It is no small Evidence of the Doctor's desperate Cause, when he flies to such Arguments for the maintenance

nance thereof, as the Commendations bestowed by Learned Men upon the person, whom he would perswade us, though falsely, to be the Author thereof: But especially considering that these Encomiums were given before the Hypothesis was known: For *Ermuller* died at *Lypsick*, Anno 1683. *Sponius* write his Epistle An: 1681. *Daleus* his *Encyclopadia*. An: 1685. Whereas the *Schedula Monitoria*, never saw Light till the Year 1687. If then there be any strength in that Argument, as I think there is none, it militates intirely against the New Method: Their Commendations being given upon account of the old, professed and practised in his Book *de Aeth: Curand: Febr:* the *Schedula Monitoria* not being at that time published.

Doctor *Morton* is indeed a Great Man, and deservedly esteemed by our Author, for his excellent Treatise written formerly *de Pibisi*: as also  
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for his late Book *de Febris*, wherein, as I am informed (I not having indeed perused it as yet, which I am almost ashamed to profess) he does noways follow our *Doctor's New Method*, which is no great proof of his overvaluing it: Nevertheless upon other Scores he might, and that deservedly too, applaud *D. Sydenhame*.

Concerning these Excellent Men, *Goodall, Harris, &c.* I have nothing to say, but perhaps it might be, that in some Epidemick and Anomalous *Fever*, they did find that Method successful, and so did imploy it: But surely therefore it must not be applied to all.

And now I think. I have sufficiently Answered our *Doctor's* Arguments, as also confirmed the contrary Hypothesis. Yet there remains one, which both in his Books, but especially among his Admirers and Patients, he principally insists on: *viz.*

*His*

*His great and successful Experience.*

This is a thing the greatest Empericks boast most of; yea they will hardly grant a Patient ever to have died in their Hands. I have nothing to say against Experience it self, it being, with Reason, the Foundation of Physick. Neither will I here in an English Book, discover the Fraud of some Mens Experience, but I will offer to the Reader's and the Doctor's Consideration, the Five following Things.

1. I wish the Doctor were as ingenuous to tell us how many Died, as he is careful to publish how many Recovered, by this his New Method. 2. To one, I can oppose a hundred, not only of such as were Cured by Old and Antiquated Physicians; but of such as live and practise in this very Age. 3. As, blessed be God, all our Patients do not Die, so neither, I suppose, do all the Doctor's Recover: And surely  
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if any of these two were, it would be a far more effectual mean to gain the Doctor Employment, as his writing of the *Vindictory Schedule*. No, Thanks be to the Physician of Souls, we have no reason to complain. 4. How many persons Recover, not only when no Mean is used, but even when that which is certainly Evil is applyed: So that a little success in a few Patients, deserves not the Name of sound Experience in Physick. Especially when 5. we are sometimes right uncertain, whether the Apothecary hath rightly dispensed, or the Patient rightly used, that which the Physician prescribed: None of which Doubts are without all ground, as too frequent Experience tells us, and I could easily evince: But I have no Inclination to discover my Father's Nakedness.

As for what he brings in the 14 *Sett.* for corroborating his Theory of Fevers from the *Helpers* and *Hurt-*  
ers,

ers, &c. as things of small Moment, and favouring nothing, save Ignorance in Anatomy and Physiology, I pass them. As also the Solutions he gives of Difficulties moved against it, are of the same Mettal, as hath clearly been shewn, in his Account of Sanguification, Chylification, &c.

Only, it deserves the Reader's Attention, that Page 77. where he proposeth that true and most probable Method, as he is pleased to call it: I find mention, and only mention, of *Paregoricks*, without any Advertisement, how and when they ought to be used, albeit of all Medicaments whatsoever, they should be advised with the greatest Cautions. I shall neither insist on them nor their use: They be these unto which both he and we are forced to flie, when other Refuges fail. And they be of two sorts: *First*, Such as either by obtunding the Acrimony

mony of the Humours, or laxing the Tone of the Fibers, do really mitigate the Pain, by removing somewhat the Cause, and they are commonly called *Anodyns*. And the others are these, who do not remove the Cause, but lay it a sleep, and renders it quiet by stupifying the Senses, and they go under the Name of *Narcoticks*. Concerning the first, or *Anodyns*, there is here no question, they being frequently applied outwardly: But for *Narcoticks*, I cannot conceive, upon what account he adviseth them in *Fevers*, (except when Symptoms grievously urge) unless it be to stop critical Evacuations, there being hardly any thing, which does it more happily. And if this be a good Design, whatever the Doctor may pretend, let the World judge.

Now to shut up all, I shall lay down a brief Scheme of that Method, which we dayly, and, Blessed

be God, with good Success practise, and I have been here labouring to defend. I say a brief one, for I noways pretend to play the Dictator, but only to shew in few words, what it is I have been wrestling for. Yea there are so many Circumstances and Accidents, which both may and frequently do occur and fall out about feverish Persons, that they make it absolutely impossible, to commit all to Paper, what a skilled and judicious Physician will find expedient.

When then called to a Patient, in the First, Second or Third Day, after he hath found a Coldness and Grewing through his whole Body, which is ordinarily accompanied with, or at least is shortly after followed, with a Pain, in the Head and Lassitude of the whole, together with a frequent Pulse, red and thick Urine, great Thirst, dejection of Appetite, Watchings, Heat, &c. By which we easily

easily conjecture a *Fever* to infect. I say when called to such a Patient, immediatly, if his Age, Sex, Evacuations suppressed, kind of Life. &c. do allow, we advise Bleeding, more or less as the several Circumstances permit, however, if need so require, we think it still safer to evacuate at different times as all at once: But the Prohibents exceeding the Permittents, it ought to be totally neglected. After that, if the Patient hath been, or is yet troubled, with Nauseating, Risting, &c. a Vomiter, providing nothing dissuading the same be present, is next advised. And then through the whole Course of the Cure, our principal aim is levelled at the Continent or Conjunct Cause of the Disease, which, by giving Incisers and Aperients, ever till we observe the Signs of Coction in the Urine, we labour to Incide and Digest: Which Signs appearing, with stronger Sudorificks we assist Nature

*A brief Defence, &c.*

endeavouring its own Liberation, and so we bring the Malady to a *Crisis*, or rather *Lysis*. In the mean time we neither neglect the consideration of the Strength according to the second Axiom: Nor yet do we forget the Antecedent Cause, as is in the first; but partly by Clysters, partly by Laxants given at the Mouth, we absorbe and cleanse the first Ways, and so prevent the further accumulating of Crudities, which by running into the Mass of the Blood, might increase the *Fever*. And while these are a doing, with proper and fit Medicaments, we provide (yea even sometimes, as it is in the fifth Axiom, with the neglect of the primary Disease) against the urgent Symptoms, such as Thirst, Watching, &c. After this Method, God assisting, we Cure *Tubo*, *Crisis*, & *Ph*



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